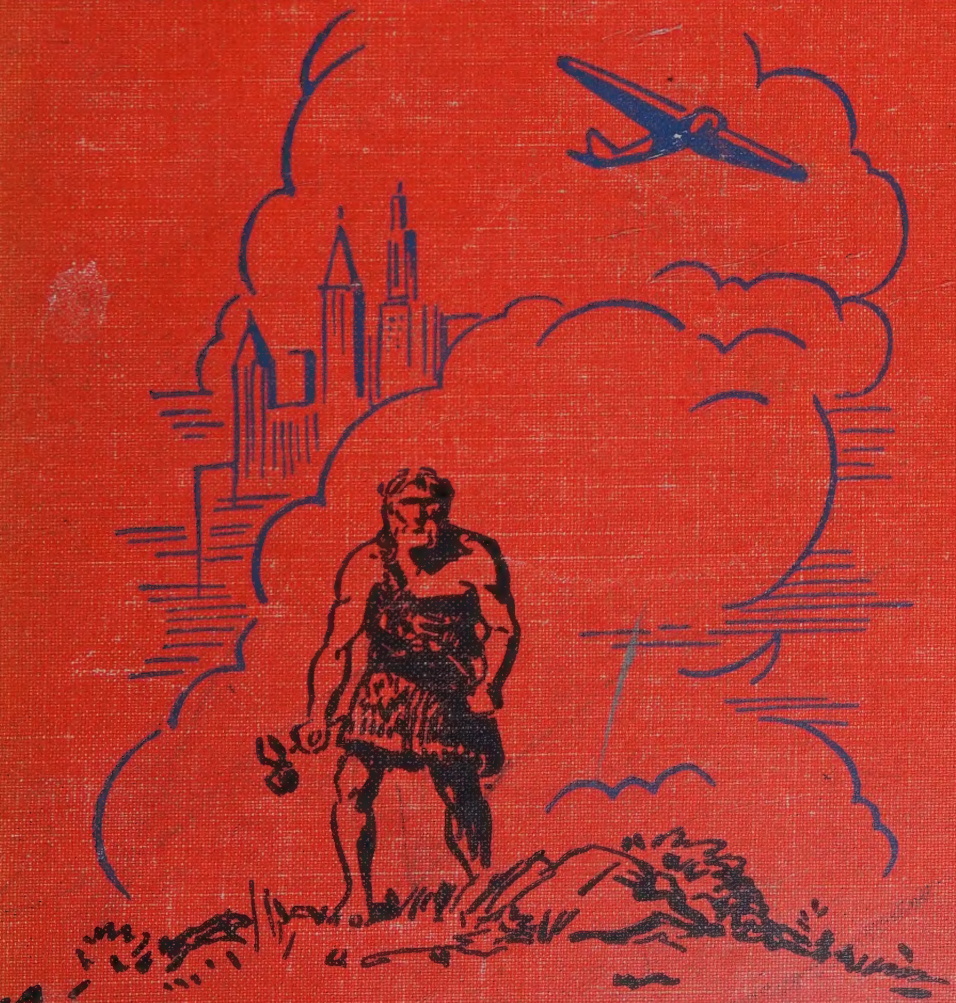
THE CHILD'S STORY OF THE HUMAN RACE



BY RAMON COFFMAN

THE CHILD'S STORY OF THE HUMAN RACE

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One day long ago, in the great trading city of Venice, three ragged men turned up. They claimed that they had just made a trip never made before—to the distant court of Kublai Khan, the powerful ruler of the Orient.

"Ha, ha!" laughed the disbelieving Venetians. "You don't look like friends of any king!"

The weary Marco Polo and his relatives did not argue, but invited the Venetians to a party.

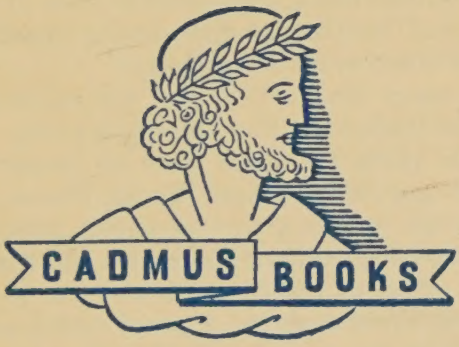
At the party the Polos were no longer in rags—they wore gay, costly robes. Young Marco, soon to be known as the world's greatest traveler, brought out the ragged traveling clothes. There were odd-looking seams in them. *And in those seams was the proof of the Polos' unbelievable story*—a proof which amazed and convinced the guests and made them bow low in respect.

Many other strange facts are brought out in this fascinating book. Can you believe that bald heads were once the fashion? That people took baths not to get clean but to visit with one another? That long ago the people of Britain were called the "painted people" and the women dyed their hair blue?

Can you imagine a half-savage man, while watching a wild horse prancing by, suddenly deciding to get on his back to see what it would be like to travel so fast? What a Wild West show that first horseback ride must have been!

Hundreds of stories, just as interesting and astonishing as these, are told in this fascinating book. It is a "true" book, yet as entertaining as any "made-up" story ever written.

LAKE WILSON
SCHOOL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BY

RAMON COFFMAN

WITH ILLUSTRATIONS

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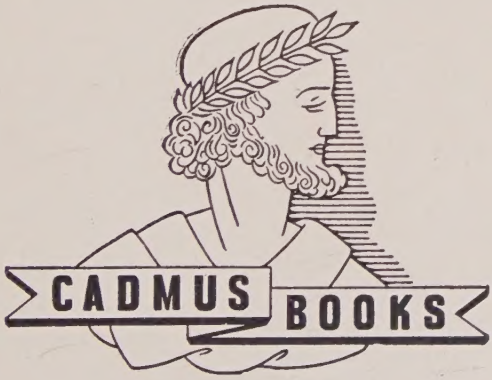

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CHICAGO

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TO THE CHILDREN OF TO-DAY
WHOSE WARM HEARTS AND EAGER
SPIRITS ARE AN EVER-PRESENT
JOY TO ME, I DEDICATE
THIS BOOK

THE PICTURES

Most of the pictures in this book were made by people living during the times of which the history is written. Sketches in Stone Age caves, Egyptian grave-pictures, Greek vase-paintings, Roman tombstones, manuscripts and books of the Middle Ages, have supplied a great number of illustrations. We owe thanks to the men who have gathered these pictures during the past hundred years.

In the chapters on Egypt, you will find pictures collected by Wilkinson, Maspero and Rawlinson. For the chapters on Greece and Rome, Schreiber's Atlas of Classical Antiquities, and Rich's Dictionary of Roman and Greek Antiquities have been extremely useful.

Pictures made by artists of the Middle Ages have been chiefly found in collections made by a Frenchman, LaCroix; a German, Kleinpaul; and two Englishmen, Cutts and Wright. The privilege of reproducing old prints in the centennial edition of Irving's "Columbus," has been thoughtfully given by G. P. Putnam and Sons.

To the good will of Harper and Brothers, we are indebted for the use of facsimiles of a few pictures in Parton's "Caricature and Comic Art." Old prints relating to railroads and William the Conqueror's expedition, are reproduced from *Scribner's Magazine.*

Newspapers in one hundred cities of the United States and Canada have published much of the material in the form of short daily articles. To the *Milwaukee Journal,* for which the newspaper series was first prepared, the author expresses hearty appreciation for friendly services on more than one occasion.

About sixty pictures have been made especially for this history, to illustrate passages for which it was impossible to obtain contemporary sketches. The great majority of the pictures, however, are such as to show the changes in artwork during different periods in man's career.

FOREWORD

Dear Children Who Read This Book:

During my boyhood, I was anxious to learn "how things were" in times past. Many books, I read—or tried to read; but they were hard to understand. Their difficult words and long sentences kept me from knowing much of what they contained. Besides, they were mainly about kings and queens, wars and battles. Little was told about the customs of the people, about the real life of long ago.

Now that the years have passed, I have been able to learn many of the things I was curious about when I was a boy. I have set myself to the work of making a book of history which would bring back olden times to children of to-day. I want *you* to be able to find out about the life of mankind, while you are still young and eager for knowledge. I hope you will remain eager for knowledge all your lives. The writing of "The Child's Story of the Human Race" has taken three years. I have had joy in doing the writing; and it will please me if you have equal joy in reading.

Sincerely your friend,

RAMON COFFMAN

Madison, Wisconsin

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THE CHILD'S STORY OF THE HUMAN RACE

The Child's Story of the Human Race

CHAPTER I

THE EARLIEST PEOPLE

The earliest people must have been savage creatures. For a long time they had no tools or weapons except those they might pick up from the ground, or break from a tree. To guard themselves from wild beasts, they may have used stones and clubs.

How do you suppose people learned to use fire? It was no doubt by reason of accident and curiosity.

Did you know that every year hundreds of forest fires are started by lightning? It is through forest fires that early men probably learned what fire was like. Before they knew better, they may have taken a forest fire for a terrible monster that belched smoke and flame. How frightened they must have been when they saw such a fire! We can almost see them running with all their might and not stopping until tired out. They were afraid of that terrible "monster," and who can blame them?

Two early men as we imagine them taking a blazing stick from a forest which has been burned to ashes.

Yet in every human brain there is what we call "curiosity." Some man, let us suppose, became curious about this monster which ate up

whole forests. After running away from a fire, he went back to see what it was really like. Near the forest edge, he paused. The fire was almost out—only here and there was a flicker of light. Suddenly the man found that he had become warm, and enjoyed the new feeling.

Other men (we shall say) had followed him back to see what would happen to him. He shouted to them something which meant "good." A few of them came up and joined him. They also felt the warmth and liked it. One man said:

"Let's go farther! Maybe we'll like it better still."

Picture in your mind these men as they went where the fire had been. One of them caught sight of a stick which was still burning a little. He ran and picked it up, by a part which was not ablaze, and found that the fire did not hurt him. Out of the forest waste he carried the burning stick.

After walking some distance, the man who held the blazing stick, burned himself. He dropped it quickly. To his surprise, he saw that the fire spread to dry grass at the spot where it had been dropped. This gave him an idea. This good warm fire might be kept alive by putting on more dry grass or sticks. The idea was tried and it worked.

With this new knowledge, the men carried a flaming stick to the camping place and built a bonfire! After that, they had to keep adding fuel to the fire night and day, lest it should go out.

Scientists say that early men may have obtained fire from hot volcano ashes, as well as from forest fires.

Glaciers in Europe

In your school geographies, you have probably read about the great ice sheet (or glacier) which spread over almost half of North America many thousands of years ago. Did you know that there were ice sheets spreading over Europe at the same time? Much of northern Europe was covered with an ice sheet from the Frigid Zone. The southern region was partly covered by another glacier, spreading out from the Alps Mountains. The glaciers stayed thousands of years, then slowly melted away.

There were at least three great visits of glaciers before the one of which we have just spoken. Each glacier spread over portions of Europe and North America.

The first glacier we know about, came more than five hundred thousand years ago. It is believed that there were no people in Europe at that time. There may have been people in Asia. Each glacier took thousands of years to come, and thousands of years to melt.

The earliest men in Europe are believed to have found the weather warm and enjoyable. As time went by, however, it grew cooler. Some tribes no doubt moved to northern Africa, getting there by tramping across land strips which then existed between the two continents. Others remained in Europe, living in places where the ice sheets did not reach. Even in those places, it must have been extremely cold. Perhaps clothes were invented at that time. The skins of slain animals could be flung around the bodies of men, making a loose but fairly warm covering.

The Making of Words

Human beings must always have known how to talk—after a fashion. The earliest people, however, surely spoke in a crude way, with few words. They could hardly have been able to speak a long, smooth sentence.

How did they get their first words? We do not know. Spoken words are not like bones, stone knives, or spear-heads. *Words* could not be saved for us to see after hundreds of thousands of years.

Yet, if we use our reason, we may obtain an idea of how people made words in the first place. Suppose you were far out in the forest with some friends. Suppose all of you had forgotten how to talk, and that you had to stay in the woods for many years! If you wanted to say "brook," you would probably make a sound like the brook. Wouldn't you say "urgle-urgle" or something like that? If you wanted to say "crow," you might say "caw-caw." If you wanted to say "dog," you could say "bow-wow."

In the same manner, it is believed, the earliest people made many of their words. To say "wind," they very likely said "woo—oo—oo." To say mammoth, bear, lion, fox, deer, wolf, they doubtless tried to make the same sounds they heard these animals make.

Some of the earliest men are believed to have looked like this rude fellow, but we are able to judge only by portions of the skull which have been found. (Drawing based on a bust in the American Museum of Natural History.)

Perhaps you ask: "If things that made noise were named in that way, why don't we all use those names now?"

That is a good question, but there is a good answer. Parents, we can be sure, taught their children the names of the different animals, but the children may not have said the names in just the same way. As time went on, there were changes in the way certain words were spoken. Finally, a person could not have told that the words were the same any more.

To give ideas of motion, the earliest people may have tried to *act out* the ideas. For instance, when they wanted to say, "the bear runs," they probably made the sound for bear and then made the *motion* of running. To say "high," they may have held their hands as high in the air as possible.

Even to-day, we often use words that *sound* like the things they name. Among such words are: buzz, hiss, crack, splash, and bob-white. Say these, and see for yourself.

Fierce Animal Enemies

The earliest men learned how to get fire from burning forests, or from volcano ashes. They knew how to kill certain animals with clubs or by hurling stones. They learned to wear the skins of animals for clothes.

Those were great victories over nature, but they did not make men feel really safe. Clubs and stones were good weapons against small animals, but they did not help much against larger beasts.

Among the fierce animal enemies of men in Europe and elsewhere, was the saber-tooth tiger. You see it pictured. We have an idea of how this tiger looked from bones it has left. Notice the long, sharp teeth. Those teeth were as keen as the blade of a saber. That is where the name "saber-tooth" comes from. During thousands of years, men in Europe were bothered by this tiger. If it sprang at them, they were almost certainly lost.

Happily, saber-tooth tigers did not like cold weather. When the climate of Europe began to grow cooler and cooler, some of them died off. Others made their way south by the strips of land between Europe and Africa.

The saber-tooth tiger long held the people of Europe in terror.

When the tigers left Europe, it may have been unpleasant for people in Africa, but it was good for the people of Europe. Their troubles, however, were far from being past. Many other fierce beasts roamed over the lands now called England, France, Germany, Russia, Spain, Austria and Italy. One terrible animal was the rhinoceros. It was different from the kind we see at circuses: it was not so fat, and could run faster. It had two horns on top of its head, one of which was sometimes three feet long.

The Mighty Mammoth

The mammoth was another fierce beast in early Europe. It was the largest animal then known. Some mammoths grew to be twelve

feet tall, with tusks eight or ten feet in length. The tusks were somewhat curved.

There are no longer any mammoths on the earth; they all died out long ago. We know about them in two ways. First, their skeletons have been found buried deep in the earth, near the remains of people. Secondly, the bodies of several mammoths have been found in northern Siberia. Those mammoths had lain frozen there for thousands of years, but the intense cold kept them from decaying.

How the mammoth is believed to have looked. A man could not have reached to its ears—and no man of the Stone Age would have cared to try.

The mammoth looked very much like an elephant, but it had a warm coat of close fur and long hair besides. Its ears were not so large as an elephant's. Its skin was about an inch thick, which is twice as thick as the skin of an elephant.

What do you suppose early men did when they saw a mammoth? They must have run away or climbed a tree. For a long time, they had no weapons good enough to fight a mammoth.

CHAPTER II

THE EARLY STONE AGE

Knives are surely handy things, and it is hard to say what we would do without them. Yet there was a time when people had no knives at all. That was before our ancestors began to use their brains very much. There came a day, however, when sharp stones were used for cutting. Perhaps such a stone was first used to make a gash in a dead animal before the hunter began tearing off the skin.

Sharp stones were not always easy to find, and to the brain of someone came a splendid plan. He decided to *make* a stone knife! This was probably done by knocking stones together, so as to break them into pieces. Flint stones were used most of the time. The broken pieces often had sharp edges. When people began to make tools out of stone, they were entering what we call the STONE AGE.

Above: How a stone knife may have been held in the hand while cutting.

Below: A stone knife found in France, near St. Acheul. It is probably more than one hundred and fifty thousand years old.

Sometimes a piece of broken stone was sharp enough, but was not of just the right shape. Then these early people showed more brightness of mind. They learned to chip the piece around the edge to make it just right for a knife. To do the chipping, they used another stone. Thousands of pieces of stone, chipped into the shape of rude knives have been found in Europe.

Knives were not the only things early men made from stone.

Knives were handy for the skinning of animals and for the pointing of sticks, but what if one wanted to cut a large limb from a tree? It would have been a hard job to do it with one of those stone knives.

A hand-ax found at Chelles, France. It is believed to be more than one hundred and fifty thousand years old.

The ax was invented.

When I say ax, do not think of the fine ax with a long handle, which you may have in your cellar or out in the woodshed. Stone Age men did not know about that kind. Their axes were made entirely of stone. The chopping part was held in the hand, and it must have been slow work to cut through wood. Even so, we know that their hand-axes were useful; men of the present time have tested them and have been able to cut down fair-sized trees.

Stone Age people liked to eat the flesh of animals, and by and by, they learned about the marrow inside the bones. Almost every time we find bones of animals in places where early men lived, we find them split open. This must have been done to get the marrow out. The bones were doubtless split between stones. Possibly, a rude kind of stone hammer was sometimes used.

How the hand-ax may have been used to fell a small tree.

Stone-Pointed Spears

We have already spoken of some of the animals which early men feared, but there were others just as deadly in their way. Europe

had many caves in which lived lions, bears and other animals.

The cave-bear was larger than most bears of the present time. It had strong, sharp teeth, and claws which could make great gashes in the flesh of a man. If a person happened to walk near the mouth of a cave, one of these bears was likely to rush out and tear him to pieces. The weapons men then used were not good enough for fights with such an animal.

The cave-lion was just as fierce. People had always to be on their guard against it, as well as the cave-bear. Life must have been full of terror for everyone.

Happily, men were not willing always to remain at the mercy of such animals. By using their brains, they invented a new weapon. This weapon was the spear with a stone point. Before it was invented, pointed sticks are believed to have been used as spears; but the points were not strong enough. Some hunter (or perhaps several hunters) hit upon the idea of fastening sharp stones to wooden handles. A great number of stone spear-heads have been found in Europe. The handles have rotted away, but the shape of the stones seems to prove how they were used.

At last, men had the stone-pointed spear! No longer did they need to fear cave-lions or cave-bears. In fact, hunters even went out in search of these beasts to kill them for food. Bones, split open for the marrow, show that Stone Age people feasted on lions and bears, time and again.

Moving into Caves

Few, if any, of the very earliest people lived in caves. This seems to be proved by the absence of human bones in the lowest layers of rock beneath cave floors (in which scientists have dug down). There are plenty of lion and bear bones in the lowest layers, but human bones are usually missing.

After the stone-pointed spear was invented, a great movement into caves seems to have taken place. Cave-bears and cave-lions were

killed or driven to other homes. Men wanted to live in the caves, at least for the winters. During cold weather, it was better to live in a cave than to half-freeze outside; but caves were hardly pleasant. They were gloomy and damp. Diseased bones of human beings have been found in caves, and doctors say that the diseases must have been caused by dampness.

The stone-pointed spear must have been a great help in driving bears and other animals out of caves.

Bonfires were built inside of caves from time to time, as we know from ashes which have been dug up. There were no chimneys, however, and such fires made too much smoke. It was best to keep the bonfires just at the entrance to the cave.

Besides making the cave a little less chilly and damp, fires at the entrance kept away wild beasts. Animals of the forest fear flames. The caves which early people used were often very large. Some of them were hundreds of feet long. Away from the entrance, it was dark, and people probably used those dark places only for storing food—until they learned to light the inside.

How Caves Tell History

We have spoken of digging in caves to find the bones of people and the tools they used, and to learn what animals they killed for food. Very likely you have wondered: "How does this digging tell us history?"

To help answer that question, a drawing is given on page 11. It shows the "layers" beneath the bottom of one of the caves which have been examined.

That cave once had much more room in it than when found by men of the present time. The "floor" was at first about eighty feet beneath the top of the cave. As time went on, the wind blew tiny dustlike particles through the entrance. Chunks fell from the ceiling now and then. People lived there and left things lying around. Thus the level of the floor kept getting higher and higher as the ages passed. The difference in any person's lifetime was slight; but after thousands of years, the difference was great.

A diagram of a cave in which nature has preserved a story of human and animal life.

Look at the drawing closely—it shows nine layers beneath the present cave floor. The cross lines stand for levels at which ashes of fires were scattered about. Scientists have figured out fairly closely how many years it took for each of the layers to be built up. In the lowest layer were found the bones of several animals. Layer "2" contained traces of fires.

In layer "3" were the skeletons of a woman about five feet two inches tall, and of a youth an inch shorter. Tools made of bone, as well as stone, were found in this layer. Of animal bones, there were those of the deer, the wild horse, and the hyena. In layer "4" was the skeleton of a man who must have been six feet four inches tall. Bones of a leopard were nearby. Layer "5" contained the remains of fires, as well as bones of the deer, ox and rabbit.

The next layer above contained a large number of stones which had fallen from the ceiling of the cave. The cave seems to have been deserted for a long time after that happened.

In the uppermost layers were stone tools which showed better workmanship than those in the layers below. This proves that men

were improving in ability as time went on. The skeletons of two babies were found in layer "9." They are believed to have been buried there more than fifteen thousand years ago.

Learning to Start Fires

It was a great victory when men learned to carry burning sticks from forests and use them to make bonfires at their camping places. People tried to keep the fires burning from day to day, but sometimes they went out—when the person watching fell asleep or when a heavy rain came down. If that happened, there was a hard problem. Members of the tribe might be lucky and meet with another tribe which could give them "a light." Otherwise, they were forced to wait for the next forest fire. For months and months, they had to go without cooked meat, without warmth.

Men disliked to be without fire. Setting their brains and hands to work, they found a way to start a fire whenever they wanted to do so.

No one could write in the early Stone Age, so we cannot be certain just how men learned to make fire. Yet we may get a good idea from half-savage tribes of later times, such as the American Indians and the Eskimos.

If a person rubs his hands together, they become warm. (Try it for yourself.) Some man of the Stone Age may have noticed this. Perhaps he remembered that fire made his hands feel warm, and that *hot sticks* made fire. He wondered what would happen if he made sticks hot by rubbing them together.

Let me tell a story about How Man Made His Own Fire (but remember that it is only a story):

The man who thought about hot sticks, rubbed two of them together. The more he rubbed, the warmer they became. He kept it up for an hour or so. The sticks became warm, but still there was no fire. The man grew tired and quit; but he told his friends what he

had done. They were interested and decided to try to make fire themselves. One of them (we shall say) acted like the man in our picture. After splitting a chunk of wood with his stone ax, he placed it against a tree trunk. Then he picked up a round stick and rubbed it up and down, pressing hard. Many times he rubbed. A groove was made. Tiny bits of wood (smaller than sawdust) collected in the groove.

Making fire by rubbing wood against wood.

The man worked on. Then wonder of wonders! The wood dust began to glow. He waited, thinking that a flame might come. But there was no flame—only smoke and glowing wood dust.

Casting about for something which would burn easily, his hand touched dry grass. He put a bit on the wood dust, and joy welled in his heart as fire started. His shout of triumph brought comrades to the spot. They saw the little fire and helped get it well started by putting on more dry grass. Then they put on twigs and sticks. At last a real bonfire blazed. Men had learned to start their own fires!

It is too bad that no one really knows how people learned to make fire by rubbing sticks. The best we can do, it seems, is to guess—as we have done in this story.

The Invention of Weaving

Women in Stone Age days had plenty to do. We can feel sure that they spent much of their time cooking meat over the family bonfire. At other times they might sew skins together to make clothes, which was not an easy job. Of course they also had to take

care of their babies, and see that the children behaved properly. (One way that children "behaved" was by keeping out of the way of wild beasts.)

Later on, a new kind of work was found for women. It was weaving. To weave means to entwine or lace together. In those days, it is believed that people had no idea of making cloth; but if we can judge by partly-savage tribes of the present, they knew how to make baskets. No doubt, the baskets were woven from strips of the inner bark of trees. Such baskets would make it easier to carry small things when a tribe was "on the march."

CHAPTER III

BETTER TIMES IN THE STONE AGE

After the stone-pointed spear was invented, men began to hunt for many animals which had made them afraid before. How can we tell what animals were most often killed? By heaps of bones which have been preserved. In the island of Sicily, the bones of great numbers of hippopotamuses have been found. These animals once lived even farther north, but the cold weather at the time of the last glacier drove them southward. The people of Sicily certainly liked the meat of the "hippo." In a single cave, the bones of about two thousand were found!

The remains of thousands of deer, bison, bears and lions have been dug out of caves in Europe. The deer was also a favorite food. Even mammoths were sometimes killed by Stone Age hunters. Such huge beasts could hardly have been slain in the open. It is believed that pits were dug and covered with branches and shrubbery. When a mammoth came along, it might tumble in. Then the hunters could kill it by hurling spears into its body and striking its head with large stones.

In France, near the city of Lyons, a place has been found where Stone Age people had an open-air camp. Strewn over a large area were the bones of bison, reindeer, and, above all, wild horses. The heaps were six feet deep in some spots. It is estimated that the bones of one hundred thousand horses were found.

What feasting must have gone on at that camp! Probably the hunters gathered there each summer from far and wide. They sat around great fires, roasting the meat. When they had chewed away to the bone, they would split it open to get at the marrow. Then they would seize another chunk of meat to roast. Of course they all ate with their hands.

As the hunters feasted, there must have been much wild singing and shouting, and perhaps some dancing as well. If there was dancing, it was very likely to the music of hollow logs, beaten with clubs. Such "drums" are known among a few savage tribes of the present time.

Sewing with Needles

At the beginning of the Stone Age, there were no needles with "eyes." Holes must have been punched in skins by means of small pointed sticks, or with sharp pieces of bone or stone. Some kind of "thread" was used for sewing skins together, perhaps dried tendons of animals.

Let us now try to tell the rest of the story of the needle as it may have happened.

In the latter part of the Stone Age, there was a woman sitting sewing in front of a large cave. She lived in this cave with her children, husband, brothers, sisters, uncles, aunts and cousins. This woman was more *thoughtful* than the other women of her tribe.

On the day we are speaking of, she was sewing together skins which were to serve as clothes for her children. Winter was drawing near, and she had decided to get them ready to withstand the cold. She punched the sharp bone into the edges of the skins, drew it out again, then pushed the tendon thread through the holes. She said to herself:

"Well, well! It is a great bother to have to do all this work to get these pieces of skin together. I wish I knew an easier way."

A flint dagger of the latter part of the Stone Age. Note the sharp point which may possibly have been used to make "eyes" for needles.

Then the beginning of an idea came to her. She buried her head in her hands, and for a time was lost in thought. Suddenly she sprang to her feet, exclaiming:

"I have the idea! I know what to do!"

She ran into the cave and got her husband's sharpest flint dagger

from its hiding place. Going where there was good light, she punched a *hole* with the dagger point in the piece of pointed bone she had been using while sewing. Next she put a piece of cord-like thread in the hole she had made, and stuck the pointed bone into one of the skins. The thread was carried right through with the bone! A needle had been invented!

We are not sure that needles were invented in this way; but we know that bone needles were used in the later Stone Age. Women probably were the first to make them, since it must have been their job to do the sewing.

Of course the needles were very crude at first, but soon they were improved. Hundreds of bone needles have been found in caves. Some of these show the finest kind of workmanship.

A Stone Age mother as we may imagine her "sewing up" her son for the winter. At the lower left are three needles used during the Stone Age.

The First Boats

When people of the Stone Age wanted to get from one side of a deep river to the other, what did they do? There were no boats at first, so the only thing to do was to swim across—or else not get across at all.

This problem of rivers must have been a big one in the Stone Age. Families were in the habit of moving frequently. They moved in order to find new forests in which the men could hunt. They usually spent their winters in caves, but in summer they roamed far and wide—it was move, move, move.

When a group of people came to a shallow stream, the grown-ups could wade across, carrying the babies and small children in their arms. When the river was deep, the men and women had to swim across—probably carrying the children on their backs! People must often have been drowned when the river was wide and the current strong.

Happily, a safer way was finally found to get across rivers. The boat was invented.

How a Stone Age man may have looked riding down a river on a solid-log "boat."

The earliest boats were surely rude affairs—perhaps just logs. The idea may have come to a man who liked to think about a time when things would be easier and happier. Such a man, let us suppose, once saw a tree floating down the river (it had been blown in during a storm).

"Oh!" he cried, "how great it would be if I could go on water like that tree!"

He followed along the bank for a distance. Then a big idea came to him. Into the water he sprang, and was soon at the side of the tree. He grasped one of the limbs, and held on. Down the river he floated with the tree. Finally he climbed on the trunk and sat down. The tree did not sink. The man was riding!

Soon he found that he was quite a distance from his friends. He could not turn the tree around and ride back, so he jumped off and swam to shore. Running quickly to the camp, he told the news of his adventure.

From that day on, members of the tribe knew that a person could ride on wood in water.

Later, people learned to cut the branches from trees and make round solid-log "boats." Perhaps they used poles to push the logs along, or they may simply have floated with the current. As time went on, sticks with broad ends may have been used. By paddling hard, people might make the logs go across small rivers with slow currents.

Better Boats Are Made

The boat which was just a log helped in crossing lakes and small rivers, but it could have been of little use in crossing wide, swift rivers. It was too clumsy to be used against a strong current. Besides there was another bad point—the log would not stay *steady*. A person might be going along nicely enough when all of a sudden—smack! He would be pitched right into the water. The log, being round, would turn suddenly if the man leaned a little to one side. That meant a ducking. Such duckings began to bother early men. They wanted to be able to ride on wood in water, but they did *not* want to be thrown in so frequently.

Someone had a new idea. He decided to fasten two or three thin logs together (perhaps with strips of skin) and make a steady boat. When this idea was carried out, there was the beginning of a real boat.

Toward the end of the Stone Age, logs were sometimes hollowed out on one side by cutting or burning. This made a kind of canoe. A few such "dug-out" affairs have been found in Europe.

Taming of the Dog

In the early part of the Stone Age, man had no friend among the animals. All were afraid of him or else tried to kill him. Then man made friends with the dog!

The dog is related to the wolf. Its ancestors are believed to have been one branch of the wolf family. From this branch developed the "wild dog."

How did men first tame the wild dog? The facts about that have been lost in the dim and misty past.

This is another case in which we must use our imagination. We know that early hunters often killed the wild dog. They ate it for food. On one of his hunting trips, let us suppose that a man killed a dog which was the mother of some puppies. The hunter did not notice the puppies. Later in the day, let us think of two children—a boy and a girl playing in the woods. Suddenly the girl cried out:

"Oh, look! There is a cute little animal that can hardly walk!"

The boy looked and saw a puppy.

"Let's catch it," he said.

In a moment, they had caught the chubby creature. The boy told the girl that she could have it.

The children of our story finding the puppies which were tamed.

"There's another one!" exclaimed the boy, and he ran and picked it up.

The children took the puppies to the cave with them.

"Ha!" said the father, when he caught sight of the children. "You have little dogs. Bring them here and I'll kill them. They will make fine eating!"

"Oh!" screamed the girl. "Don't kill these poor little things. Let's keep them while they grow."

"Please let us keep them," said the boy.

The old hunter was amazed. He had never heard of such a thing, and thought that the children were foolish. He was about to take the puppies and kill them, when he noticed tears in the girl's eyes. This sight made him pause.

"Now, now, girl," he said, in a voice that was gruff but also tender, "I'll let the things live. Don't cry any more!"

The children jumped for glee. They kept the puppies and fed them. As they grew into dogs, they loved the children and watched over them.

. . . . . .

Although that is "only a story," men of science think it really likely that dogs were first tamed by "bringing up" puppies found in forest or field. In some places, dogs may have been tamed in this way; in others, grown-up dogs may have become friendly when they gnawed at bones tossed away by men during feasts.

However they were tamed, we know that dogs were on good terms with men before the end of the Stone Age. No doubt they helped hunters in pursuit of game. They may have been trained to catch rabbits and bring them back to the hunters. Their warning growl might save the master from the sudden attack of a lion or other large, fierce animal.

Two boys as we imagine them "playing hunter" during the Stone Age. The boy on hands and knees pretends to be a wild beast.

What Did Children Do?

In all ages there are children. Let us remember that! Most histories speak only of men and women, but we are also interested in knowing what children did in ages past.

In the Stone Age, as always, we can be sure that there were plenty of babies. We can also be sure that they cried from time to time and woke up their parents at night.

There were no books or school buildings, during the Stone Age, but children learned in one way or another. Parents and other grown folks were no doubt the main teachers; but many things children could learn for themselves while wandering in forest or meadow.

No one can say what was the first game boys and girls played, but

it may have been "tag." What child could miss the idea of tag? To touch a playmate and dare him to catch you, seems to be almost as natural to children as for ducks to swim.

"Playing hunter" may have been another pastime. Children like to act like their parents. Perhaps the boys made little spears and pretended to go out and hunt bears or lions. Other boys may have taken the part of fierce beasts, running away from the young hunter or pretending to fight him. Girls doubtless made up "the audience" most of the time; but sometimes I suppose that they joined in the game, acting as huntresses or as wild animals.

Children's main work was probably picking berries and gathering firewood. When they did either of those things, they had to be careful of real wild beasts.

A Better Way of Starting Fire

Where Stone Age people lived, pieces of flint have been found in certain spots next to chunks of "pyrite." Pyrite is a mixture of metal and sulphur. It is found in many parts of Europe, often at the surface of the ground. Because of its yellow color, it may easily be mistaken for gold. It is sometimes called "fools' gold" because you are fooled when you think it is gold.

Stone Age men are believed to have picked up chunks of pyrite to start fires with the aid of flint. We can well imagine a man finding a piece of pyrite and taking it to his cave. There he may have tried to see whether it could be used in chipping flint for tools.

To his surprise there would be sparks!

"These sparks are like those of a fire!" he might think.

By and by, he would probably try to make the sparks set fire to something. Dry grass would do, and there is little doubt that fires were often built with sparks from pyrite and flint. This was easier and quicker than rubbing sticks.

Invention of the Bow and Arrow

A Stone Age hunter crept quietly toward two deer, grazing a short distance from the clump of bushes in which he had been hiding. Knowing that the deer would flee at the slightest sound, he took pains not to step on anything which might make a noise. He held his stone-pointed spear in his right hand.

At last he was close enough. He raised his arm to throw the spear. Just as he was about to let go, the two deer (which had either heard or scented him) suddenly tossed up their heads and began scampering away.

The hunter hurled his spear, using all the power of his strong shoulders. It whizzed through the air with terrific speed, flying true toward its mark; but the deer had started in the nick of time. The shaft fell so that it just grazed the heels of the hindmost animal.

Once more this hunter had failed!

He did not lack strength or skill. He was as good a man with the spear as anyone in the tribe. The trouble lay with the weapon. It could not be thrown far enough for the hunter to be confident of slaying a deer or a bison or a wild horse. At times he was able to kill these animals, but more often he failed.

Something had to be done. Men needed and wanted a better weapon than the spear.

Such a weapon was invented. It was the *bow and arrow.*

You will be surprised to hear how long it took men to invent this weapon. It appears that the bow and arrow was not used until more than fifty thousand years after the invention of the stone-pointed spear!

A Stone Age artist made this picture of a man getting ready to shoot an arrow at a deer. The animals hind legs are missing, and the man has a mighty queer form. In the next chapter you will hear of many other pictures made by artists of that time.

It is unlikely that any one man gained the whole idea of shooting an

arrow with the aid of a bow. The invention must have been the result of the thinking of many brains at many times.

The use of the bow and arrow was one of the greatest steps man ever took to make his weapons better. It meant that hunters were now able to kill fleeing deer or wild horses without a great deal of trouble. It spelt death for thousands upon thousands of those animals. For man, it meant greater mastery over wild beasts.

CHAPTER IV

ARTISTS OF THE CAVES

"Toros! Toros!"

It was the cry of a little Spanish girl. Her words meant:

"Bulls! Bulls!"

The child had come with her father to a large cave in northern Spain—near the shore of the Bay of Biscay. The father was digging in the cave for flint weapons and tools left by people of the Stone Age. When he heard his daughter cry out, he was startled.

"Where? Where are the bulls?"

The child pointed toward the ceiling of the dimly lighted cave. The father looked up and saw a marvelous sight. Stretching above for many yards were pictures of animals. There were bison (which looked like bulls to the child) and there were also pictures of horses, deer, and other animals. Some were life size. Some were painted in four colors!

A group of animals painted on the ceiling of the cave at Altamira, like those the Spanish girl mistook for bulls.

This discovery was made about forty years ago. Since that time, many other caves which contain pictures have been found in Spain

and France. It has been proved that these pictures were drawn by people who lived in the latter part of the Stone Age.

Of all the surprising discoveries in history, few have been more surprising than this. Think of paintings being made in the Stone Age! No one ever dreamed of such a thing until the sharp eyes of a little girl saw some of them in that cave near Altamira, Spain.

The cave is about nine hundred feet long. At some points, it is fifty feet broad. It winds a great deal, as most large caves do. The ceiling is low, and at some places a man must bow his head to pass. Near the entrance the remains of bonfires and bones split open for the marrow have been found. Stone knives, axes and spear-heads were also found near the entrance.

After gazing on the "bulls" for awhile, the Spaniard looked into other parts of the cave. Almost everywhere, he found pictures made by Stone Age artists. These pictures were drawn or painted at different times. The first were made perhaps ten thousand years before the last.

The earliest pictures were drawings in black. Later, a reddish coloring was used, and still later the cave artists painted pictures in several colors.

Crayons and Paint

Men of science have done much work to find out how the drawings and paintings were made in caves. Partly burned sticks were no doubt the first pencils. Someone learned that he could use charred wood to make marks. At first, he may simply have tried to make straight lines or cross-marks on a stone outside the cave. Other men —and no doubt children, too—began to play with the burnt sticks.

In time, attempts were made to draw pictures. This was very likely done on large stones; but when rain or snow came along, it spoiled the pictures by smudging them or washing them away. The inside of a cave was a better place to work if the artist wanted his picture to last.

Among the great inventions of the Stone Age was the colored crayon. It was used to help decorate the walls of scores of caves in southwestern Europe.

The crayons were made from ocher, a colored earth found in certain regions. It gets its color from the mixing of iron and clay in the earth. Sometimes the ocher is red, sometimes it is yellow.

A stone saucer used for mixing paint.

More important than the crayons was the paint. It was made by mixing ocher with oil squeezed from the fat of animals. A substance called manganese was also found in the earth and used in making paint. The main colors used were red, yellow and black.

Paint tube used by a cave artist.

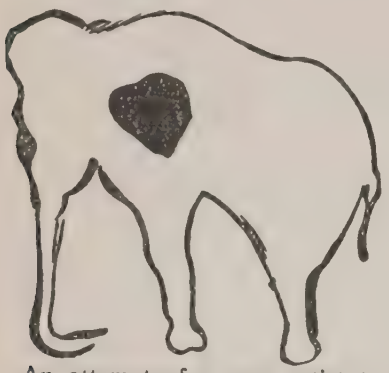
It is believed that little saucer-like stone holders, like the one pictured, were often used for the paint. The ochers and the manganese were crushed to bits. Then the animal oil was poured in. A small stone doubtless was used for mixing.

After the paint was made, it was sometimes placed in an oyster or clam shell. In other cases it was put in a paint tube made from a reindeer legbone. Several such tubes have been found in caves where paintings were made. One tube, discovered in a French cave, still contained some of the dried paint. The paint may have been as much as thirty thousand years old!

A Queer-Looking Mammoth

The first pictures were crude affairs. They were usually attempts to make images of animals. On the wall of a cave at Pindal, Spain, a picture of a mammoth was painted in red. It is reproduced on page 28 and you can see that the artist was not very good. He left out

the tusks, and showed only two legs. No doubt he thought that it would be too hard to draw the legs on the other side. A large red spot was put on just behind the head. Was it meant for the heart or for an ear? It is hard to say.



An attempt of a cave artist to picture a mammoth.

Better pictures of mammoths have been found in other caves. There is no really good image of that mighty beast; but some Stone Age artists were at least careful enough to show four legs and long tusks. Now and then the hair outside the skin was also shown.

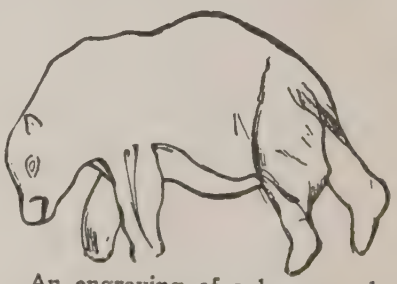
Hundreds of pictures of bison, horses and reindeer have been found upon the walls of caves, with now and then a sketch of a bear, wolf, duck, swan or fish. Pictures of human beings were made in only a few places.

The Beginning of Engraving

Painting was not the only art invented during the latter part of the Stone Age. Sculpture and engraving were also begun at about the same time.

What is engraving? It is cutting a figure or design into some surface. If you cut your initials into a piece of wood, you are engraving in a rude way.

Hundreds of engraved pictures have been found on the walls of caves. Some of these are excellent, others are very crude.



An engraving of a bear on the wall of a cave near Les Eyzies, France.

The bear picture before you is a copy of a fairly good engraving on the wall of a cave near near Les Eyzies, France. In this cave are

more than a hundred other engravings, including images of the bison, horse, wolf, reindeer and mammoth.

An engraving of a crane was discovered in one French cave, and in another a swan and two ducks were carved in stone and horn. A duck carved in horn is shown in the illustration.

This sketch of a duck was engraved upon a piece of horn.

Rude faces of men made by Stone Age artists.

Stone Age engravers did poor work when they tried to show the human face or figure. Perhaps they thought that it was not worthwhile to take pains about such a common thing as man or woman!

Several faces of men were engraved on the walls of a cave near Marsoulas, France. You see two of these.

Fine Reindeer Engravings

One part of the Stone Age is sometimes called the Reindeer period, because there were so many reindeer in Europe at that time.

These animals were among the favorite subjects of Cave artists. An engraving of a reindeer is shown on page 30. It is meant to be galloping. The outline is strong and clear-cut. This is a masterpiece of the Stone Age. If a modern artist had to work with tools of stone and bone, it is doubtful whether he could do so well.

Those old engravers seem to have carved pictures on anything they could find. The walls of caves, the horns of bison, the antlers of reindeer—these were only a few of the substances on which images were cut. In an English cave was the engraving of a horse's head on

a rib-bone. The tusks of mammoths were used for other engravings. On one mammoth tusk, the outline of a mammoth was cut and the tusk was left in a French cave for us to find fifteen or twenty thousand years after the artist died. A pebble with an engraving of a bear on one side, was found in a cave near Toulouse, France.

A reindeer engraving.

In still another French cave, a number of bear teeth were discovered. Holes were pierced through each, and it is believed that the teeth once formed a necklace. On one tooth an engraving of a seal was found! In spite of the small surface, the Stone Age artist had made a good image. On another tooth a fish was carved.

Invention of the Lamp

Caves were dark and people of the Stone Age must have had a mighty hard time finding their way around inside. Bonfires could be lighted in the caves, but that meant too much smoke. If you have ever stayed in a smoky room, you will realize how unpleasant it must have been for Cave people to let bonfires burn within their homes. Only near the entrance could fires be built with comfort.

Many paintings and engravings were made hundreds of feet from cave entrances. How could light have been supplied for the artists?

There were two ways.

First, the torch was invented.

The earliest torches were doubtless burning sticks. They did not satisfy because they sputtered and smoked and gave little light.

You may have noticed that fat meat will burn if you let it get started. This must have been found out by Cave people when they roasted the flesh of animals over open fires. Someone may then have

had the idea of putting a piece of blazing fat on the end of a stick and carrying it into the cave. Such fat torches would give fairly good light and would not smoke much. Yet there was still a big drawback. The stick which held the fat was sure to catch fire sooner or later.

Some thoughtful person became tired of having the stick burn up, and said:

"Let's put the fat on a piece of stone."

It was done, and that was the beginning of the lamp.

As time went on, the lamp stones were shaped in a manner easy for a person to hold. They were made flat and circular—except for a kind of handle. In the picture at the right, a modern artist tries to give you an idea of a scene in a cave during the Stone Age. Light is supplied by one of the flat stone lamps we have described.

A Stone Age woman holding a "lamp" for a cave artist. She holds pieces of fat to use when the flame becomes low.

Several stone lamps have been found in caves. It appears that suet and lard were sometimes separated from the animal flesh and placed in the lamp instead of the fat meat. In such cases, some sort of wick may have been used.

CHAPTER V

LEAVING CAVES AND TAMING ANIMALS

During most of the Stone Age, caves were the main homes of men. When the weather was warm, people sometimes camped in the open; but during winter, they were sure to go back to the caves and keep out of the way of chill winds.

Toward the end of the Stone Age, however, many families began making their homes in huts all the year round. Remains of huts built at that time have been found as far north as Denmark and as far south as Italy.

The stone remains of a hut in Denmark.

An outline of the remains of a hut in Denmark is to be seen on this page. You notice a large circle of stones, not quite complete. Space was left for an entrance to the hut. The inner circle marks the spot of a stone hearth on which fires were built. The hearth was placed near the doorway so that the smoke could get out through that opening.

The walls of this hut were made of reeds, woven through a framework of branches. This is proved by bits of burned clay found amid rubbish inside the circle of stones. On one side of these little chunks of clay are the marks of interwoven reeds. On the other side are prints of the fingers and thumbs which pressed the clay into the hut walls perhaps ten thousand years ago. The clay was used to keep out wind and rain. It is believed that the hut caught fire, causing the clay to be baked and saved down to the present time.

The men who lived in such huts were both hunters and fishermen. They had rude boats which were used in gathering oysters and other shellfish. Great piles of oyster shells have been found near places where the huts were built. In the midst of these shells, stone tools and weapons have been saved, along with bones of animals.

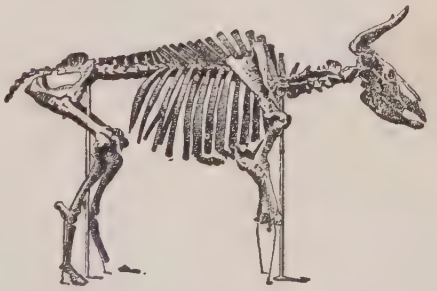
Wild bulls and boars were among the favorite victims of the hunters who lived in Denmark before that country had its name. Deer were also brought down, and their bones are among those the hunters tossed away after eating off the flesh. It is believed that wild dogs often crept up to the camp to gnaw bones which had been thrown away. This was probably one way dogs came to know men.

Only part of the people of the Late Stone Age moved out of caves and into huts. Thousands remained in their old homes. They feared to try something new.

The Story in a Bull's Bones

In a museum at Copenhagen, Denmark, there is propped up the skeleton of a wild bull which grazed in the fields of Denmark long ago.

The bones of this animal were found in the bed of a dried-up lake. With the remains were several arrowheads. Two of the ribs showed the marks of arrow wounds. One wound had healed before the animal died. The other had never healed. Sunk in the bone was still a piece of the flint arrowhead.



The skeleton of a bull which was shot to death by the arrows of a hunter in the Late Stone Age. (After Breasted.)

What story lies back of this skeleton? Something like the following:

In the latter part of the Stone Age, a hunter was seeking prey. He caught sight of a bull and sent an arrow at it. The arrow (we sup-

pose) missed the bull, which began running away with all its might. The hunter shot another arrow, and this time struck the animal in the upper part of one of its ribs. The wound was slight, however. The bull kept running and escaped. In time the wound healed.

On another day, this same wild creature was out browsing in a meadow. A hunter carrying a bow and a number of arrows happened along. He saw the bull, fitted an arrow in his bow, and sent it whizzing through the air. The brute was struck in the lower part of one of its ribs. The wound was serious but not mortal.

The hunter gave chase, firing arrow after arrow—sometimes hitting, sometimes missing.

How the hunter is believed finally to have brought death to the bull.

The bull left a trail of blood as it ran. Finally it came to a lake and plunged in. Reaching the shore—hot and angry—the hunter sent another arrow at his intended victim. This arrow sank home. The bull kept swimming bravely, but loss of blood and the last cruel arrow wound proved too much. It gasped and gave up—sinking to the bottom of the lake.

The hunter saw the animal sink, and was vexed. He realized that it would be foolish to go far out in the lake and try to recover the carcass. He turned away, and sought other game.

The time came when the hunter died, as did his children and children's children. Thousands of years passed. The lake began drying up, and there was a marsh where it had been. Shrubbery and trees grew in the marsh.

As more centuries rolled by, this plant life died away. The stalks and branches and leaves were formed into dry peat, which people burn nowadays. A man dug into this peat. About ten feet down, he dis-

covered the skeleton of the bull! The bones were examined carefully, and seem to tell us the story I have just related.

Italian Huts and Chimney Holes

Remains of Stone Age huts have been found in Italy, near the shore of the Adriatic Sea. Of course, all these huts were destroyed long ago by rain, wind or fire. We find only the holes over which the huts were built, and things used by the people who lived there.

The hut-holes are usually round, and two or three feet deep. The average width is about fifteen feet. In many holes pieces of clay have been found. The clay was used to plaster the wicker roofs and walls. Bone needles, stone knives, and stone axes are among the other relics. Animals bones (split open for the marrow) show that the Italian hut-dwellers feasted on the flesh of oxen, goats, beavers and deer.

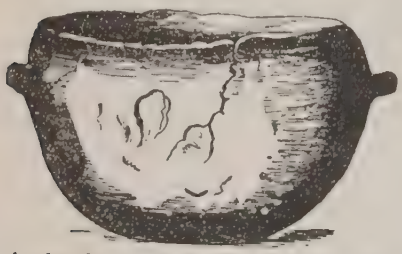
Charred wood and burnt animal bones seem to prove that these hut-dwellers built their fires at the center of their homes, instead of near the doorway as in Denmark. That must have meant the use of a chimney. It was not such a chimney as we know nowadays. Probably it was just an opening in the roof.

Bowls and Jars of Clay

When the earliest men were thirsty and came to a brook or spring, some of them doubtless stooped down and put their lips to the water to drink. Others probably formed the palms of their hands into the shape of a bowl. The next step was very likely to use large shells for cups. The hollow horns of animals may have been used sometimes, especially to carry water from place to place. Other things which may have been used for holding water are gourds and the skins of animals.

Wicker is believed to have been used in making bowls at a later time. These were coated with clay to make them water-proof and fire-proof. The idea of *boiling* the flesh of animals had already come

to the human mind. When such bowls were held over the bonfire, the clay on the outside hardened. In some cases it is likely that it dropped off and man found that it could be used as a bowl without the wicker inside. Someone then had the idea of taking fresh clay and molding it into the shape of a bowl, then hardening it over a fire. This was done and the bowl held water.



A clay bowl of the Late Stone Age.

Of course, the earliest bowls and jars were not very good-looking. People did not know how to make clay smooth and round, but in time the art was mastered.

When clay is made into a special shape and hardened by fire, it is called "pottery." Bits of pottery have been found in hundreds of places in Europe where people of the Late Stone Age lived. The pottery pieces have been put together carefully so as again to form the cups and bowls which were used from five to fifteen thousand years ago. In some cases, bowls and jars have been found almost whole, in spite of the great passage of time.

Handles

The earliest clay bowls probably had no handles of any sort. Later on, little knobs were placed on either side to help in holding. In time, holes were made in the knobs so that a finger could be passed through. Still later, a hole big enough for the whole hand was provided. This meant the invention of a *handle*.

At first no one thought of trying to make the pottery beautiful. The only desire was to make it useful. Human beings, however, have a love of beauty which comes out sooner or later. In due course, the clay dishes were made to look pretty. Zigzag marks were among the first made on the clay before it was baked over a fire. Dots, dashes, squares and circles were also made.

By this time, handles for axes and hammers had been invented.

The stone heads were sometimes bound to the handles with strips of animal skin or with rope. In other cases, a hollow was cut in one end of the handle, and the ax-head or hammer-head was placed in the hollow.

The Horse Finds a Rider

For a long time, men thought of the horse only as a wild creature whose flesh tasted good when roasted over the fire. Tens of thousands of wild horses were slain with spears and arrows. Great heaps of bones remaining from Stone Age feasts prove that horse meat was greatly enjoyed.

Paintings and engravings of horses were often made by Cave artists. In one of these pictures the horse seems to have a halter about its head. This is taken to prove that the animal had been tamed by the time that picture was sketched. In another Stone Age picture, a man seems to be chasing two horses with a short stick. If he had wanted to kill them, he would no doubt have used a spear or bow and arrow.

After the horse found a rider.

Though tame horses were known in Europe during the Stone Age, they seem to have been tamed in Asia at an earlier date.

Can you imagine yourself far back in the history of the human race—back to the time when the taming was first done?

Let us suppose that a man said to himself:

"How swift that horse can run! I wish I could go that fast."

One summer day he happened to be lying lazily in the shade of a tree, thinking about the fun it would be to cover ground as quickly as

a horse. Suddenly he looked up and saw a young horse grazing only a few feet away.

A queer idea struck him.

"I'll get on its back!" he decided.

The horse did not notice the man, who crawled near, sprang to his feet, grasped the mane and jumped on the animal's back!

Then came such a sight as we see at a Wild West circus. The horse jumped and kicked and reared and snorted. It was young but it was strong. The man held to the mane with one hand. With the other he grasped the horse beneath the neck, and partly choked off its wind. The horse began to weaken, and finally quit struggling. The man gave it a whack with his open palm, and off it galloped across the plain.

The man had won a horse, and the horse had found a rider.

A Tale of Wounded Goats

In the Late Stone Age, animals besides the dog and horse were captured and tamed by man. Among these were goats and sheep. Let us weave a tale of how goats were first brought under human care.

One day a band of hunters in Switzerland came upon a herd of about a dozen wild goats. They fired arrow after arrow into the group and brought down quite a number. Each man picked up one of the animals to carry back to the hut village.

The head man of the tribe—the chief—happened to be one of this band of hunters. Of a sudden, the goat he held under his arms began to squirm. The chief looked down and saw that it was still alive—having been only wounded by the arrow which had sunk into its body. The old hunter's first thought was to kill the animal with his dagger, but he paused.

An unusual idea crossed his brain.

He had often *wished* that the game supply could be more steady. Some days his tribe had more meat than could be eaten. At other times hunting was poor, and the tribes had to go hungry.

The chief now thought that he had a chance to avoid such a situation. He would keep the goat alive for awhile and kill it when the game supply ran short!

At this moment, another hunter cried:

"My goat isn't dead yet! I'll have to kill it over again."

"Wait a bit!" shouted the chief. "My goat is alive, too. We'll keep both of them at the village until a day when we get nothing on our hunting trip."

The animals were tied to trees with ropes made from strips of skins, and they grazed on the grass which grew in and around the village. They became fat and tame.

One of the goats was a female, and someone learned that it would give milk which was good to drink. The tribesmen decided that they would like to have more goats. Pits were dug in mountain places, where the beasts were likely to walk and fall in. They could then be tied around the neck and pulled to the hut village—though that might not always be an easy or a pleasant job. Wild goats must have known a great deal about butting.

Above: The miner as we imagine him being struck by a cave-in. Below: The skeleton and pick as they looked when found.

Miners of Stone

Nowadays, men mine coal and iron, gold and other substances. In the Late Stone Age, a great deal of mining went on, but it was not for coal or iron or gold. It was for flint, and the flint was used to make tools and weapons.

Shovels such as we have to-day had not been invented then. Neither were iron picks used. How do you suppose the digging was done?

The horns of deer were used in many cases.

One of the most remarkable relics of the Late Stone Age is a skeleton of a miner killed in a cave-in. This man was digging to find flint when some rocks from above fell upon him. He was crushed to death.

This happened in Denmark. The lower part of the picture shows how the skeleton lay when it was discovered. The deerhorn pick—which he had used to loosen lumps of flint—was near his right arm.

Stone Walls for Houses

So far as is known, stone houses were not built until the Stone Age was almost over. You remember that caves were dark and damp. Tents and reed huts, on the other hand, were flimsy, and must often have been blown over by strong winds. When such a thing happened during a rainstorm, you can imagine what a time people had.

Building the walls of a dwelling in the Late Stone Age. A stone piece for the doorway is being put into place.

Another bad thing about reed huts was that they caught fire easily. Since there were no stoves, open fires had to be built. When they were built inside the hut, sparks would fly here and there—often setting fire to the walls. Whole villages of reed huts were doubtless burned from time to time.

Bright-minded persons in several parts of Europe thought of ways to keep their huts from burning down. In some cases, they plastered the *inside* as well as the outside with clay. If this was well done, it kept the sparks from causing fires.

Although huts were thus made fireproof, they still were not proof against heavy gusts of wind. To meet this problem, even better ideas were put into use. One of these ideas was to build the walls of houses of stone.

The picture will give you a suggestion as to how such houses were made. Scores of stones were gathered from all the country round, and piled at a chosen spot. Then they were placed one above another until four strong walls had been erected. Mortar was not used to hold the stones together, but the walls have held remarkably well. Many are partly standing even unto this day.

Over the top of the stone walls, logs were laid. These were covered with either clay or sod. A hole was doubtless left in the roof so that smoke could escape.

CHAPTER VI

WHEN MEN MOVED UPON LAKES

In the year 1854, it did not rain for a long time in Switzerland. This caused the lakes to dry up around the edges. People living beside a bay of the Lake of Zurich decided to take advantage of the low water and make their gardens larger. They began to dredge the bay. To their surprise, the dredging machines struck against posts driven in the bottom of the lake!

An artist's idea of Lake Dwellers in one of their dug-out canoes, near a village. If you ever go to Switzerland, you may see the remains of such rude boats found in lake mud.

Who had put those posts there? That was the question. Scientists were asked to find out. They discovered stone tools in the mud around the posts.

Other lakes were dredged in Switzerland and various parts of Europe. Posts were found in lakes of England, Germany and Italy; but Switzerland had the most. In one Swiss lake were thirty-two groups of posts, in another forty-nine groups.

What did each group mean? It meant that a *lake village* had been there. While still in the Stone Age, thousands of people built homes on lakes. To do so, they cut tree trunks into posts, from ten to thirty feet long. Each post was pointed at one end, so that it could be pounded down.

Sometimes wading, sometimes paddling in their heavy "dug-out"

canoes, they carried the posts out upon the lake and drove them into the bottom. Over the tops they built platforms, as we know from remains found between the posts.

The next step was to build huts on top of the platforms. The picture on this page will give you an idea of how some of these huts are believed to have looked. In certain lake villages, there were hundreds of huts. From each village, one or more platforms led to the shore.

Clay jars and bowls have been uncovered where the villages once stood. Bone hooks have also been raked up from the mud between posts. The Lake Dwellers certainly had an easy time fishing with hook and line!

Lake Dwellers and Their Herds

Why do you suppose so many persons of the Late Stone Age built hut villages over the surface of the lakes in Switzerland and other parts of Europe? The main reasons must have been a desire for safety. There was now a special cause for fear. Lake Dwellers owned herds of animals which might be killed by wolves or bears, or stolen by members of other tribes.

We have already spoken of tame horses, sheep and goats. The Lake Dwellers also kept oxen and hogs. Bones of these animals have been found in the mud around the stakes and posts which once held up the huts.

A Lake Dweller driving livestock out to graze. The way the platforms were built has been learned fairly closely by examining timbers left among the ruins.

The remains of wild animals, as well as tame, have been found in lake mud. Brown bears, wolves, foxes, wildcats, beavers, bison and deer were killed and eaten by the Lake Dwellers.

The ability of men of science to tell which animals were tame, is a marvel. One way they do it is by noticing small differences in the bones. For instance, certain bones of wild boars have more creases in them than the same bones in hogs (tame boars). Perhaps that is because tame animals lead a more easy life.

There must have been herders among the Lake Dwellers to take care of the sheep, goats and oxen while they grazed during the daytime. Perhaps this work was given to women or old men, so that the stronger members of the tribe could go hunting.

At night the animals were driven upon platforms built over the water, near the hut village. Shelters were made to protect them from rain in summer, and from snow and icy winds in winter. Railings kept the beasts from tumbling into the water while being driven back and forth.

The First "Spinning-Wheels"

The flax-plant grows wild in many parts of Europe, usually standing about two feet high. The Lake Dwellers learned that the inner bark of the flax stalk could be divided into long thin strands. They also found that these strands could be made into thread.

To get the best results, the stalk had to be soaked in water for several days, then dried in the sun and cracked open. After that was done to a bunch of flax stalks, hundreds of thin strands of flax, each eighteen or twenty inches long, were obtained.

To make the strands strong enough for thread, they were *twisted*. The twisting was first done between the fingers, it is believed, but that was too slow. Perhaps someone then tied a small stone at one end of flax strands, and spun the stone around. This would give the strands a good twist, but would be clumsy. In time, it was learned that a round stone would spin best, and that a hole in the middle made it easier to fasten the strand. The Lake Dwellers also formed clay into circular pieces, with holes at the middle, for use in spinning. *Flax*

thread, wound about a small round stick, was found beside one clay spinning-wheel. It is the oldest "spool of thread" known to man.

Village Fires and Burnt Cloth

Lake Villages were safe from attack and were handy for fishing, but they had some bad points. Worst of all was the risk of burning. Fire was needed for cooking and to keep the people warm. Bonfires were made, it seems, both in the huts and on the platforms.

Fighting a Lake Village fire, as imagined by a modern artist.

Rocks and sand were doubtless placed at spots where fires were to be built. Yet careful as Lake Dwellers might be, fire sometimes broke out in this place or that. There was plenty of water around, and we can imagine them jumping into their rude boats and dipping up water in clay bowls to pass to persons on the platform to throw upon the flames.

A piece of partly-burnt cloth which once helped cover the body of a Lake Dweller.

Such fire-fights were losing affairs, at times. Fire might sweep over the whole village and burn it to ashes. The remains of dozens of villages, burned to the water's surface, have been found.

Lake Dwellers stored grain, fruit and flax in their huts. We might never have known this if it had not been for the fires. Plant products usually rot quickly away, and only accidents preserve them. When the villages were burned down, much grain, flax and fruit caught fire and dropped into the water. Burning

on the outside, or charring, kept those things from rotting. We can look at them now in Swiss museums, eight or ten thousand years after they fell sizzling into the water.

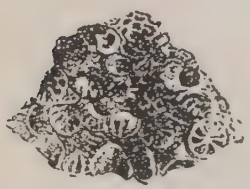
You see pictured a small piece of the earth's oldest cloth. It was made from flax and once helped cover the body of a Lake Dweller. The threads were woven together in about the same way as are bark strips in baskets. If this cloth had not been partly burned, we probably could not have guessed that the Lake Dwellers knew how to weave.

"Bread-Cakes"

Some lake villages were very large. A hundred thousand posts were among the remains of one such village. Think how many platforms and log huts those posts must have held up!

In certain lake villages, there were storehouses for grain. More than a hundred bushels of partly-burned grain were raked up from the mud over which one lake village stood. Grain was stored away for people to eat during the winter. Perhaps it was also fed to live-stock, when winter's snow made grazing impossible.

Stones used for *crushing* grain into rough meal, have been found in lake mud. After the grain was crushed, water was added and dough was made. This dough was baked into what we may call "bread-cakes." Bread-cakes were usually about an inch thick. Those which have been found were badly scorched. The bottoms of some show the marks of rounded stones. This makes it seem likely that the Lake Dwellers placed the dough on hot stones for "baking." Flax-seed and poppy-seed were often mixed with wheat or barley when the dough was made.



A drawing of a fragment of bread-cake dough in which poppy-seed was used.

The Lake Dwellers ate great numbers of crab apples, if we may judge by the seeds left to us. The larger apples were often cut in several pieces, which seems to show that they were dried for use after the fruit season was over.

The seeds of raspberries, blackberries and strawberries have been discovered. Shells in the mud show that the Lake Dwellers were fond of hazelnuts, beechnuts and water chestnuts.

In time, the Lake Dwellers learned to use tools of copper and bronze. Long before that happened, however, people north of Arabia and in Egypt had become what we call "civilized."

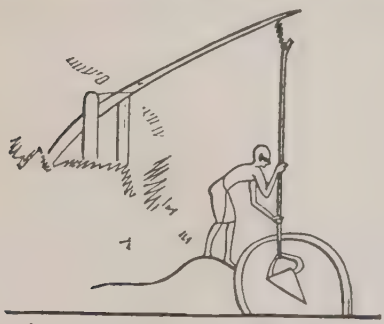
CHAPTER VII

FARMING IN ANCIENT EGYPT

Now comes the time for us to leave Europe and begin speaking of Egypt, a land in north-east Africa.

Like every other part of the earth, Egypt once had a Stone Age; but the people there pushed ahead into an Age of Metal. More than seven thousand years ago, they learned to use tools made of copper instead of stone. At about the same time, they learned how to write. It is not known whether Egypt was the first country in which writing was done, but it was certainly one of the first.

Through Egypt flows a mighty river called the Nile. For several miles on either side is flat land which has been made rich by the river. Each year the Nile rises and overflows upon much of this land. The flood is due to heavy rains and the melting of snow in mountain regions where the Nile gets its start. The flood waters are muddy. When the mud settles upon the land, the soil becomes richer.



An artist in ancient Egypt made the original from which this picture is taken. A man is dipping water from a hole. His bucket is swinging from a lever arrangement.

Making the Flood Help Men

The Nile flood has been a regular event for many thousands of years. It starts on about the same date every year. Several months pass before the flood-waters run back to the river-bed.

If the people of ancient Egypt had been dull-minded persons, they might have let the flood remain a source of trouble. But they were not dull-minded. They learned to save much of the flood water to use for their crops.

Egypt was a land of fine climate—seldom very hot, almost never too cool: but it had one great fault besides the flood. There was seldom any rain. The rain which did come was not enough to make things grow well.

To provide enough moisture for the crops, large holes or reservoirs were dug in certain places. When the flood came again, the reservoirs were filled. When the flood sank back, water was left in the reservoirs. From time to time, it was dipped out and used to moisten growing crops.

In later years, many more reservoirs were made. Sometimes long ditches were dug from the reservoirs to fields of grain. That saved labor in carrying the water. Egypt was in time covered with a network of long ditches or canals, leading from reservoirs. The Nile flood was turned into a blessing.

Working the Land

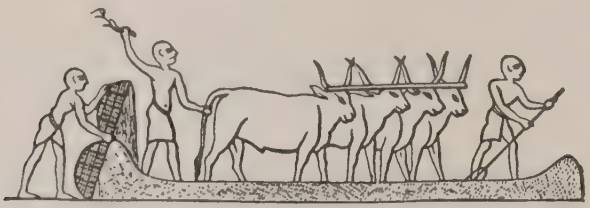
The chief grains grown in Egypt were wheat and barley; and these were widely used for the making of bread. Peas, beans and lettuce were grown in gardens, along with radishes and onions. Here and there were groups of fig trees and date palms. Flax and cotton were grown for use in making cloth.

Ploughing and sowing in ancient Egypt. A calf keeps close to its mother.

A picture before us shows two Egyptians at work in a field. One is driving cows hitched to a plow. The driver steers the plow with his left hand and urges the team ahead with a stick held in his right. Behind walks a man who is sowing grain in the furrow made by

the plow. He gets seed from the basket which he holds in view. The artist who made the picture certainly put enough seeds in the air.

Another picture shows a scene on a threshing floor. Strewn about



Using oxen to thresh wheat.

the floor are heads of wheat which are being trampled by four oxen. A man with a fork is pushing the wheat which needs trampling, in front of the animals. The driver holds the tail of an ox with one

Saving cattle from the Nile flood, as pictured by an artist of ancient Egypt. It is hard to say what the artist thought the man at the left was standing on.

hand, and a short stick with the other. At the left is a man pouring more grain upon the floor.

When not at work, cattle were allowed to graze in pastures, along with sheep and goats. Sometimes, when the flood came, careless herdsmen let their animals get caught in the waters. Then there was an exciting time saving them from drowning. Men in small boats would paddle or row toward the beasts. A sheep or a goat could be pulled up into the boat and saved in that manner; but cattle had to be rescued in a different way. Men in boats would get back of them and drive them with shouts or sticks toward dry land. When a cow or an ox

was hard to manage, a lasso was often thrown around its neck and it was pulled in the right direction.

Hunting

Flocks of wild geese and ducks used to visit the marshes near either bank of the Nile. Egyptians with bows and arrows would often go out to hunt them. Sometimes a "throwing stick" was used to strike the bird while it was swimming in the water or struggling to fly free of tall reeds growing in the marsh. Nets were used to catch ducks and geese alive and unhurt. These fowls were tamed and were raised in many Egyptian farm-yards.

Some Egyptians trained monkeys to do useful work. Here we see them picking figs. One monkey seems to be eating a fig—he must have felt that a monkey was "worthy of his hire."

Beyond the edges of the Nile valley were rocky hills and bits of forest-land. In such places, wild animals of many sorts could be hunted. Spears and arrows were used to kill the game. Dogs were taken along to drive the beasts within range.

A few Egyptians owned lions which had been brought up from the days when they were cubs. These lions were tame toward the masters; but toward wild beasts they were a terror. Many deer were killed by lions which sprang upon them and caught them for the masters.

Among the smaller animals hunted by the Egyptians were the hare and the fox. Wild oxen, wild goats, and leopards were brought down from time to time. There were no elephants near Egypt; but some hunters journeyed far to the south to trap and kill those mighty beasts.

Boats and Boating

Egypt was made up of a long narrow valley and the delta land where the Nile branched out and flowed into the sea. To go from one part

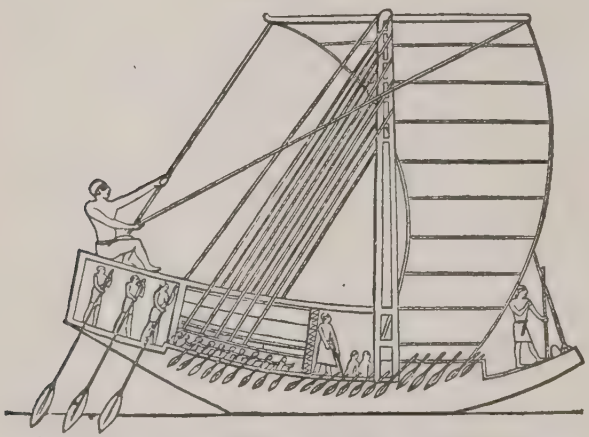
of the country to another, was not hard: the river gave a fine passage-way for boats.

Light boats were made from reeds placed closely together, and no

Egyptians building a boat. Short-handled axes with metal blades were used.

doubt held by some kind of glue or pitch. Such boats were not good for long trips. They were used for getting from one side of the Nile to the other, for hunting wild-fowl in the marshes, and the like.

Boats built of wood were the ones which made the journeys up and



A sail-boat of the Nile. The Egyptian who made this picture showed some men as if they were much larger than the rest.

down the Nile. They were usually fitted for both rowing and sailing. Pictures left us by the Egyptians show only one sail to a boat. Cotton or linen cloth was commonly used to make the sail; but some rich men

owned pleasure boats with leather sails. The leather was often covered with pictures of flowers or other designs.

Most Egyptian sail-boats were rather small but at least a few seem

An Egyptian picture of a hunting and fish-spearing scene in a marsh beside the Nile. A fowl has been caught alive by the hunter and he is about to throw a stick at other birds. The man at the right has speared two fish at once!

to have been about one hundred feet long. The larger vessels sometimes ventured out into the Mediterranean Sea and made trips to lands hundreds of miles away. To get cedar wood from the Lebanon mountains was the purpose of some of the sea voyages.

CHAPTER VIII

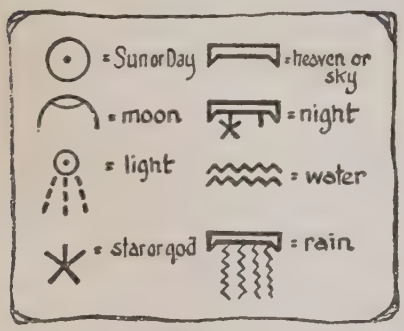
WRITING AND OTHER INVENTIONS

Of all the inventions in human history, writing is perhaps the greatest. It gives mankind the chance to store up knowledge.

Before writing was invented, knowledge of how to do things was often lost, when this or that tribe died out. Other people had to learn the things all over again, which meant going forward very slowly.

After writing was invented, facts were saved from one century to another. People could find out how things had been done before, and they could learn to do these things *better*.

The very first writing of the Egyptians has not come down to us. Scientists have found some writing which goes very far back, however. Here are some of the things they believe to be true:



Some of Egypt's picture-words.

Words were only pictures at first. Instead of writing "sun," the Egyptians drew a picture of the sun. For "man," they drew a picture of a man. It was the same for "eye," "arm," and scores of other things.

Persons who made the pictures, tried to draw them in a simple way. They wanted to *say* things with the pictures, and did not care to spend too much time doing so. Only a few strokes of their pens were used. Some of these early words (as it is believed they were written) are before you. "Sun" was just a circle with a dot in the middle. "Moon" was made by joining two curved lines, one larger than the other. "Star" was a five-pointed figure. This sign, it seems, was also used to stand for "god." Perhaps there appeared to be something magic or godlike about the stars. Notice how the drawing for "sky" was

made to stand for "one night"—a star and a short straight line were placed underneath. The picture for "water" was turned downward and joined to "sky" to make the word "rain."

Paper, Pen and Ink

Egyptians sometimes cut picture-words in stone. It was a hard task, however, and was done only when a thing was supposed to be very important. A more handy way to write was with pen and ink. The pen was simply a reed cut at one end into a sharp point. The sharp end was the "pen-point." The ink was made by mixing water with soot taken from pots blackened while hanging over fires. Gummy juices from certain plants were added to thicken the ink and make it stick.

The writing was usually done upon *papyrus,* a rush-like plant which grew in marshes alongside the Nile. This plant sometimes reaches the height of ten feet.

An Egyptian writer at work. You may make out an ink-well on the table in front of him. He has an extra pen stuck above his ear.

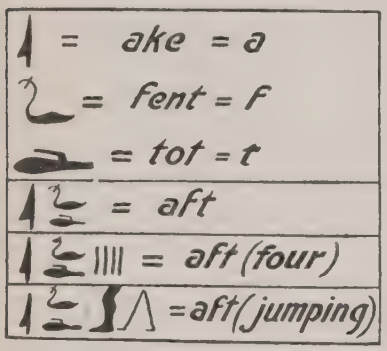
We get our word paper from "papyrus," and indeed a kind of paper was made from the plant. Its stem was split into long, thin strips. The strips were laid side by side, to the proper width. Then shorter pieces were laid all along, cross-wise. The whole was soaked in water and hammered into one piece. When it dried, it made a pale yellow paper, which would take ink. Papyrus "paper" was usually rolled up when not in use.

Writing Words by Sounds

All of us have to do some work when we learn to spell; but it must have been hundreds of times as hard for persons in ancient Egypt to find ways to spell by *sound signs.*

To do this well, an alphabet had to be made. An alphabet is simply a number of signs (letters) which stand for certain sounds. (Make the sound for "t" or "b" to yourself, and you will see what I mean.)

The alphabet we use has twenty-six signs (or letters). The common Egyptian alphabet had twenty-three signs. Three of these signs stood for different ways of speaking our sign "a." One sign for "a" was the picture of a reed (*ake* in Egyptian).



How Egyptians made up the word "aft," and how they wrote it to mean two things.

Let us see how the Egyptians wrote the word "aft."

For "a" they made the picture-word for reed. For the "f" they used the picture-word for snail (*fent* in Egyptian). For "t" they made the sign for hand (*tot* in Egyptian).

Thus the word "aft" was spelled out.

The word "aft," however, might mean several different things. To show which meaning was intended, special picture-signs were made at the end. When four straight marks were added, "aft" meant *four*. When "aft" stood for *jumping*, pictures of legs were added.

The illustration may make the facts more simple than can words.

Beginning of the Calendar

We can feel sure that Stone Age people had no special names for days. One day must have been the same as another to them—except that sometimes it was rainy, sometimes cold or hot.

Yet the time came when men noticed that the moon reached its full size in the sky once in twenty-nine or thirty days (twenty-nine and one-half days is the average time). Perhaps shepherds first learned this fact. Watching their flocks at night, they had a fine chance to observe the changes of the moon.

The Egyptians of olden times noticed that there were *about* twelve full moons between risings of the Nile.

They said (in their own language, of course):

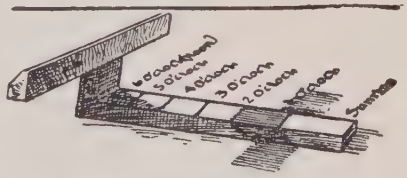
"We'll call the time between two floods of the Nile a year, and each year will have twelve parts (or months)."

There was a trouble with the moon-month year. Twelve such months made only 354 days. The real year was eleven and a quarter days longer. The Egyptians decided that each month should have thirty days. This meant 360 days for twelve months. Five other days were called "holy days"—thus making 365 days for a calendar year. No attention was then paid to the other quarter day. The Egyptians began to use a calendar with the 365-day year more than six thousand years ago.

The Oldest Known Clock

The sun is of course the earth's oldest time-teller. When it appears in the east, the day may be said to begin. When it vanishes in the west "the day is done."

Shadows change in length as the day passes. Men of the earliest times must have noticed this; but it is likely that no one cared about marking time, even in a rough way, until near the end of the Stone Age. Then people doubtless began to tell time by the shadows which trees cast. As each morning wore on, it could be noticed that the shadow of a tree became shorter and shorter. At the middle of the day, there was almost no shadow. In the afternoon, the shadow shifted to the other side of the tree and kept getting longer and longer until sunset.



A shadow clock of ancient Egypt. The Egyptians divided the day into twenty-four parts or hours.

Although these things must have been noticed by keen-eyed Stone Age men, it is probable that no clock was made until civilization began

to blossom in Egypt. Our picture shows the oldest clock now known to exist. It is a "shadow clock." Three thousand four hundred years ago, it told time for the Egyptians.

How did this clock work?

The crosspiece on the left was turned toward the east at sunrise. A shadow was cast at one end of the piece which was marked to show six hours. The later the morning, the closer the shadow came to the crosspiece. At noon, the shadow did not show at all on the time stick.

Notice that the marks were not made an equal distance apart. That was because the shadow kept moving slower and slower until noon.

At the middle of each day, the clock was turned around so as to face west. The shadow then kept getting farther from the crosspiece until sunset, and moved faster and faster. Shadow clocks of this kind helped Egyptians to know when it was time for dinner.

The First Use of Metal

At a very early date, people in Egypt began to use *metal* tools in place of those of stone. Metals were taken from ores dug out of the ground. When the ore was heated, metal ran out as if it were hot syrup. That is called smelting.

Copper was the most important metal. It was used for axes, hammers, chisels, spear-heads and arrowheads. It was hammered into whatever shape was desired. Later, men learned that if tin was melted with the copper, the mixture became harder and tougher than plain copper. Such a mixture is called "bronze."

A piece of gold-work done by an Egyptian gold-smith. The figures of giraffes are of especial interest.

Thousands of Egyptian pots and pans made from bronze have been found. They are now in museums in many parts of the world. Both copper and bronze were used for making statues. The faces, hands

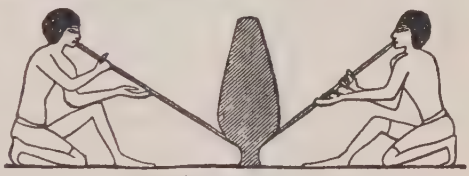
and feet of the statues were usually cast in stone or hard-clay molds. The rest of the body was hammered into shape.

Gold was much used. The doors and lower parts of the walls of temples were often coated with gold. The coating was done with "gold leaf," that is, gold hammered into thin sheets.

Smaller statues were sometimes made of solid gold or silver. Scores of beautiful gold or silver vases have been found inside mummy cases, and in the ruins of Egyptian temples.

Early Glass-Making

The art of making glass was probably first learned in Egypt. A large number of glass dishes and vases have been found in the valley of the Nile. They were formed more than four thousand years ago. Some of them fell to pieces when touched by the finders. This happened where the glass had been rather poorly made.



Glass-blowers at work.

Glass is usually made by melting sand and other substances together. Sometimes soda is melted with the sand, sometimes lime or salt. Now and then powdered flint is used in place of sand. The Egyptians made glass out of about the same things now commonly used, but their glass almost always had some color in it. Ususally it was greenish or yellowish.

To melt the sand, soda, lime and salt, a very hot fire had to be made. After the melting took place, the glass was like a thick syrup —it was soft and could be dipped out of the bowl or jar in which it had been heated.

The liquid glass was then placed in stone molds, or else it was blown into shape by men who held long tubes in their mouths. Two men blowing a large vase into shape are shown. While the glass was still hot and soft, the men blew and thinned it out. The breath made

the glass grow in size, in about the same way as breath blown into a toy balloon.

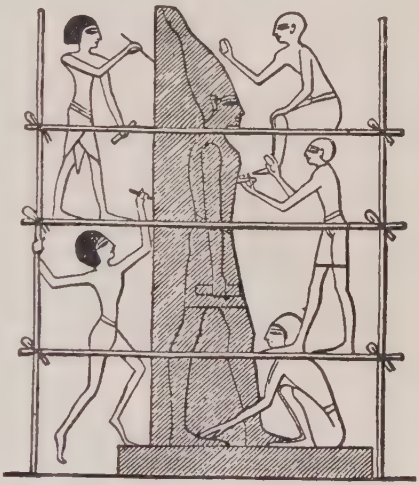
A "hippo" molded from glass.

Many were the odd uses of glass in old Egypt. The eyes and eyebrows of statues were often made of glass. All manner of sparkling "jewels" were really glass. Images of animals and birds were often molded from liquid glass. Among the glass images was one of a monkey on all fours, smelling a piece of fruit. Another was made in the shape of a hippopotamus.

CHAPTER IX

KINGS, WARS AND SPORTS

In very early times, Egypt was ruled by two kings. One had control over the delta land in the north. The other ruled the long narrow Nile valley. The two kingdoms went to war with each other from time to time. Finally the king of the Nile valley led, or sent, an army into the Delta kingdom and conquered it. The victor was named Menes. He ruled the two kingdoms as if they were one country. It appears that his palace was at the site of the modern city of Memphis.

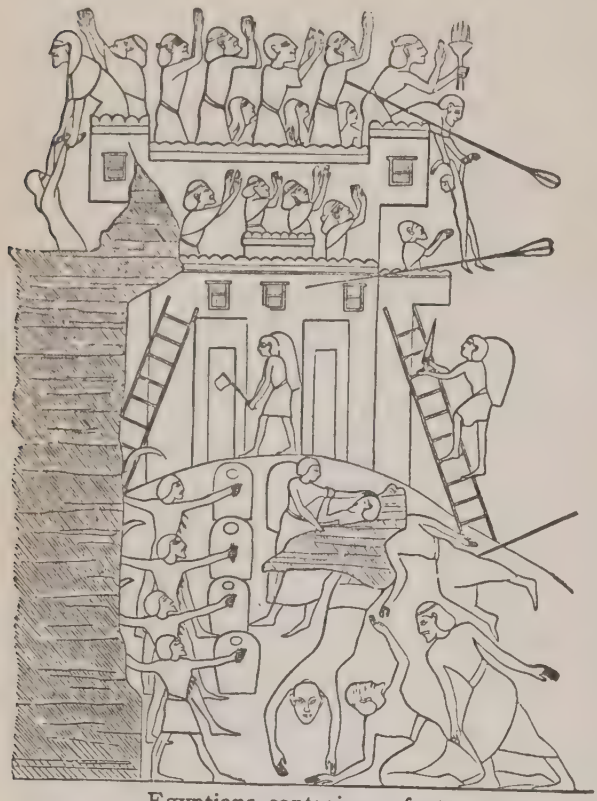


Men at work on the statue of a king or "pharaoh." The two men at the back are putting something in writing—no doubt words about the king's greatness.

Under King Menes were rich and powerful men, who may be spoken of as "nobles." In some way, not clearly known, their forefathers had made themselves owners of large tracts of land. This land was passed down from father to son, from son to grandson. The nobles were usually quite willing to help the king in his battles: they feared that if they did not do so their land would be taken from them. Each noble ruled over at least one village or town.

As you may guess, the nobles did not need to work very much themselves. The labor on their farms was done by hired men or by slaves. The chief work of the noble was to see that taxes were collected and sent to the king. The Nile was full of boats during tax times, carrying things to the national capital. The taxes were seldom paid in money.

Grain, cattle, sheep, wine, oil, honey and cloth were taken instead to the treasury building. That building, oddly enough, was called the White House.



Egyptians capturing a fort.

The government of Egypt was sometimes spoken of as the Great House. Later, the king himself came to be known as the Great House. The Egyptian word was "Per-o." When tribes of Hebrews came to Egypt from the north-east, they heard the name Pero; but when they wrote it down, they spelt it Pharaoh. That is why Egyptian kings are so often spoken of as "pharaohs."

New Ways of Making War

During the Stone Age, it seems probable that tribes of men seldom fought against one another. When they did fight, we can be sure that it was in a "hit-or-miss" fashion. They did not shoot their arrows or hurl their spears all together.

Egyptian foot-soldiers on the march.

Much better ways of killing were learned in later times.

When fighting men, or *soldiers*, were taught to move and shoot together, their ability to kill was doubled or trebled. The Egyptians learned to drill by watching armies from a country north of Arabia.

Two war chariots.

Most of Egypt's kings wanted peace and did not carry on foreign wars. To have peace was of great help to Egypt. During peaceful times, men were always learning how to do things better. Some kings, however, liked to have big armies. They fought against the armies of countries around Arabia. Sometimes the Egyptians won, sometimes they lost.

Archers preparing to fire their arrows at a given signal.

In one of the pictures, you see Egyptian soldiers marching together. Notice the bugler—even in those early times music was used to urge men forward to the fight. Slung over the soldiers' shoulders were shields, for protection against "the enemy." In their hands they bore spears, and battle-axes with sharp metal blades.

The war-makers brought horses into the fray. Sometimes men with spears rode horseback. Sometimes the kings rode into battle in chariots drawn by plumed horses.

Probably the deadliest warriors were the archers. Carrying long bows to battle, they fired metal-tipped arrows into the bodies of men on the other side.

Games and Bull Fights

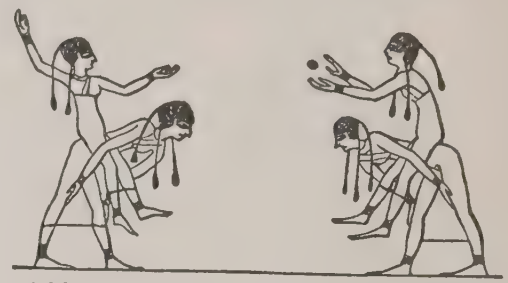
Many of the tricks performed by jugglers of the present day were also performed in Egypt four thousand years ago.

One Egyptian picture shows young women juggling with balls. Each

one is managing three balls. The juggler at the right is handling the balls in a way which must have been rather hard. Notice the tassels hanging from the hair, and the straps which held up the simple dresses.

Women juggling balls.

Another picture shows four young women playing an odd game. Two players are holding the others on their backs. We do not know just how this game was played, but we may guess that balls were thrown back and forth at the same time. When one was missed, it is likely that the girls changed about—the under ones getting on the backs of the others and trying their skill at catching.



This game was no doubt a great deal of fun—for those on top.

Egyptian balls used in ancient times have been found in tombs. Some of them were made of bran or corn shucks, covered with leather. Others were made of clay.

"Favorite" and "Broad Striker" locking horns.

Bull fights helped to amuse many Egyptians. Animals were trained for fighting, and each was given a name. Those in the illustration were called "Favorite" and "Broad Striker." They are shown locking horns in what seems to be a fierce battle. Their masters hold short sticks in their hands. The man at the left is poking the bull to urge it forward. The writing above gives the names of the bulls in picture-sound writing.

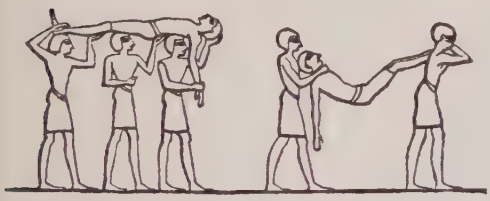
Comics

Among the hundreds of drawings left by the Egyptians are some which may be spoken of as "comics." They were drawn to make people laugh.

Tom handing his mistress a goose.

In one comic sketch, a lion, a donkey, a crocodile and an ape were drawn as if they were giving a concert, with both instruments and voices. Another picture shows the "king of rats" driving a chariot. The chariot is drawn by dogs and the rat king is on his way to attack a fort full of cat soldiers.

Two Egyptian comic pictures are shown. In one you see "a cat of high rank" sitting down while she sips wine. She is being waited on by a poor tomcat who is handing her a goose. Tom has his tail between his legs, perhaps because he feels very small.

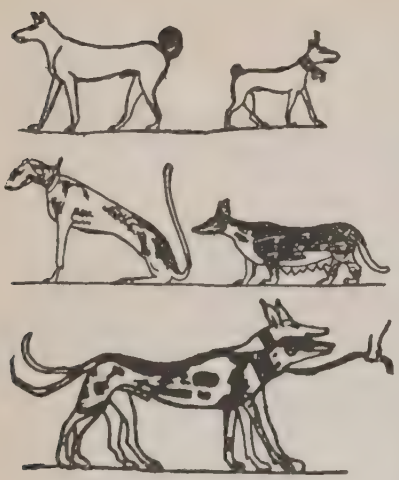


Servants carrying their masters home from a wine party.

In our other "comic," five servants are carrying their two masters who have been drinking too heavily. The artist was doubtless trying to poke fun at the masters; but in one way, the picture is not funny but sad.

Dogs of Old Egypt

Next to monkeys and apes, dogs probably have the best brains of any animal friends we have. Certainly no animal is more faithful. The people of ancient Egypt made the dog a companion and friend.



Dogs of ancient Egypt.

Several Egyptian drawings of dogs are shown. One dog has a tail which is curled in an odd manner. Another has a broad ribbon around his neck, and makes one think of certain little dogs of the present time which are petted too much by their mistresses. See if you can tell which dog pictured was of the dachshund family. I am sure you can. That short-legged creature is easy to recognize. At the right of the lowest sketch is a human hand and part of an arm. They belong to a hunter who is leading the dogs after him.

CHAPTER X

EGYPTIANS AND THE "NEXT WORLD"

If anyone speaks of Egypt, we are likely to think of the pyramids. That is because we have so often seen pictures of those great buildings near the Nile. The pyramids are tombs built to protect the bodies or "mummies" of Egypt's rulers.

The earliest kings of Egypt were content to have small mounds over their graves. Not so with some of those who came later! *They* made thousands of persons labor years and years to build pyramids for them. It was something like having one's own coffin made to order during life.

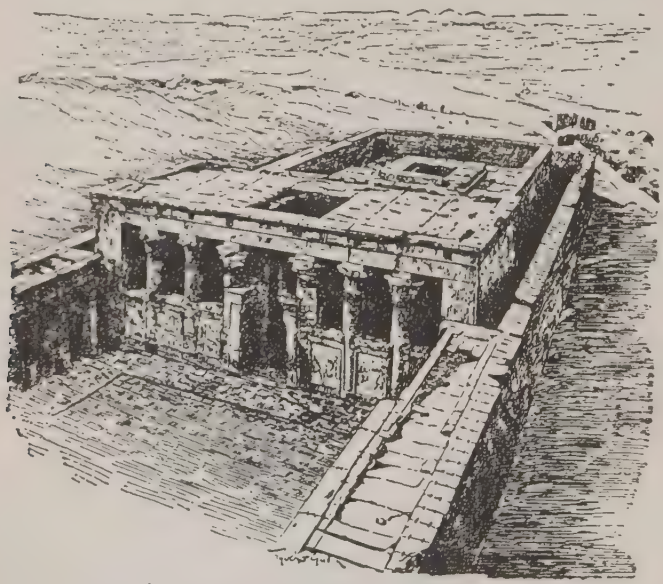
The inside of the Great Pyramid.

The largest pyramid was built by order of a king called Khufu. It is called the "Great Pyramid," and you must have seen its picture many a time. The height is 451 feet—it is higher than the capitol dome at Washington. It covers thirteen acres of ground.

You have before you a diagram of the inside of the Great Pyramid. You will notice long passageways leading to several chambers. In one of these chambers, King Khufu was buried. It is not certain what the other rooms were used for. Unknown persons made their way inside and took things out before scientists began to search the interior. One chamber, however, is called "the queen's" because it may have been used for the mummy of the king's wife.

Temples and Priests

Each town or city in Egypt seems to have had a special god to which the people prayed. Temples were built in honor of these gods, and sacrifices were offered. The men who took care of the temples were priests. They said that they knew "secrets" or "mysteries" about the



An Egyptian temple (after Maspero).

god of their own town, as well as about the gods of other places.

By their supposed knowledge, the priests of Egypt came to have great power among the people. They also became rich in worldly goods. At one time, the priests seem to have owned more than one fourth of the land in Egypt.

Mummies and Sphinxes

The Egyptians knew how to treat dead bodies so that the flesh would not rot away.

There were several methods.

The most usual custom among the nobles and kings was to have the

heart and other internal organs removed from the corpse. These were wrapped in linen cloths or placed in jars. Then the rest of the body was soaked in oils and treated with spices. We call a body treated in such a way a *mummy*.

An Egyptian priest throwing oil over a mummy. The man at the right holds a roll of papyrus, perhaps containing prayers.

In many cases, Egyptian kings ordered *sphinxes* to be carved out of stone. These sphinxes were good-sized statues which had bodies of lions and heads of human beings, rams or hawks. The body was meant to show the king's power. When the face was human, it was likely to be an image of the ruler who caused the sphinx to be made.

The most famous sphinx is called the Great Sphinx, which is pictured on page 70. Most of the nose has been battered away during the

The making of a mummy case, as shown by an Egyptian artist. The men at the right are binding up a finished case. One man in the picture seems to be waking up from a sound sleep.

thousands of years since it was formed. The Great Sphinx is not nearly so large as many pyramids, but it is of great size. Its head is almost fourteen feet wide. If it could open its mouth, it could swallow a man without a bit of trouble.

The Great Sphinx is believed to have been built to "guard" the pyramid in which the mummy of a king named Khafre was placed. The face has been thought to represent that king; but it may possibly be meant to show the face of a god.

Gods of Old Egypt

Priests of old Egypt taught that the sky was made from the body of a goddess named Hathor. Some of them said that the goddess was a beautiful woman, but others declared that she was a cow.

A drawing of the Great Sphinx, showing the forepaws which are usually covered with sand in photographs. (From Maspero's "Ancient Egypt.")

The Egyptians worshiped a sun-god called Ra. He was supposed to travel across the sky in a boat each day. At night the boat was said to pass from west to east, beneath the ground of Egypt.

Another great god whom the people of the Nile worshiped, was called Osiris. Here is a story you might have heard if you had been in Egypt three or four thousand years ago:

"Osiris was once a king of the whole country. He was a good ruler and was always just to the people. He was aided by his faithful wife, Isis. But he had a mean brother named Set, who was god of darkness. One day Set led Osiris into a trap and killed him, cutting his body into little bits.

"Isis found the pieces and put them together for burial. Then a

god of the world below came to help her. Osiris was brought back to life; but he could no longer live on earth. He had to stay in the underworld, of which he became king."

Osiris.

The Book of the Dead

What happens to a person after he dies?

That was a question the people of Egypt tried hard to answer.

Stories about a life after death were invented and written down on long sheets of papyrus. The stories, together with some prayers, are usually spoken of as the "Book of the Dead."

Set.

The Egyptians believed that every person had a "double." The double did not have real flesh or bones, but it looked just like its owner. When death came, the double left the body and went to a region under the ground, the "underworld."

The Book of the Dead says that when a person entered the underworld, he met evil spirits or demons. He kept them from hurting him by saying prayers learned from the Book of the Dead. Lakes of fire were also there and had to be avoided. Sometimes monsters had to be put out of the way.

A "soul" spearing a great serpent which is trying to block his way to the Hall of Truth. The serpent has its teeth in the body of a donkey. (From the Book of the Dead).

Finally the dead person went to the Hall of Truth and Justice. Here he saw Osiris, king of the underworld, sitting on a throne. In front of Osiris were forty-two judges, each standing for a different city in Egypt.

Looking at the judges and Osiris, the double declared:

"I have not caused anyone to be hungry.

"I have not murdered.

"I have not taken milk from the mouths of children."

He also said that he had not committed thirty-nine other sins.

The Weighing of the Heart

After the double had denied the forty-two sins, he was put to a test. This was the most exciting part of all. His heart was taken out and placed on one side of the scale of justice. On the other side was a small statue of a goddess, or else a feather-like symbol of truth.

The "weighing of the heart," as shown in an Egyptian picture. At the left is a jar containing the heart.

If the heart did not balance, it meant that the person had lied when he said that he was without sin. He was doomed to a terrible punishment. Some Egyptians believed that he was thrown to a fierce monster which waited hungrily near the scales.

All who told the truth, were sent to the "Fields of Aalu," a place of great pleasure. There they found islands amid smooth-flowing waters. They ate and drank, went hunting and boat-riding, and played games. The only drawback was that each spirit was supposed to work on the soil to raise crops.

It was believed that the double would die if the body in the tomb should ever rot away. That is why such great pains were taken to make mummies which would last thousands of years.

The poor could not afford to have their bodies embalmed in a way which would make them last long; they did not expect to live more than a few months after death. Sometimes, however, rich men paid for an expensive burial for their servants. They did that hoping to have the servants take care of the farm work for them in the next world.

CHAPTER XI

THE LAND OF TWO RIVERS

Northeast of Arabia are two great rivers, the Euphrates and the Tigris. They now join each other before they flow into the Persian Gulf; but seven or eight thousand years ago, they did not join. Each flowed into the gulf (which was then longer than it is to-day). Between the rivers lived people who became civilized perhaps just as early as the Egyptians. They knew how to write and they used metal tools.

This land has had many names. It was once called Sumer. Later it was known as Babylonia. Still later it was part of Assyria and Persia. In this book we shall most often speak of it as the "Land of Two Rivers."

A goat-herder passing time with a flute.

The cities in the Land of Two Rivers were built near one river or the other, but the land at the center of the country was of great importance. On it were raised the crops which gave grain to the cities. It supplied rich pasture-land for thousands of cattle, sheep and goats. The animals which grazed in the pastures were usually owned by men who lived in the cities. Hired men or slaves took care of the herds or flocks.

Battling a lion.

Several pictures of rural scenes have come down to us. One of these shows a goat-herder sitting (or *almost* sitting) on a tree stump. He is playing a flute made from a hollow reed. The dog which helps him round up the goats, seems spellbound by the music. Two goats appear to be equally charmed. Perhaps

that sketch was drawn by the goat-herder himself. He may have wanted to show he played so well that even animals stopped to listen.

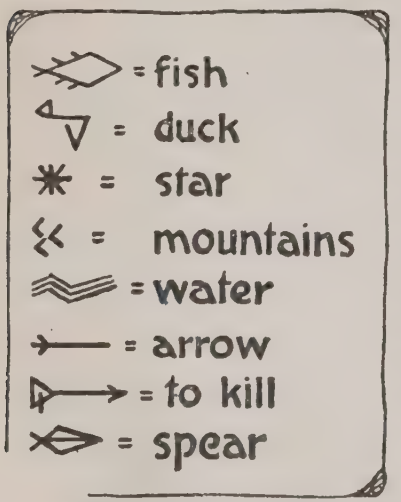
The life of the herdsman, however, was not all music. If any beast was lost, the owner called him to account. Sometimes he was forced to pay for the loss; at other times, he was whipped or punished in some other way. Lions prowled around the wild land of the interior, and often made an attack upon a herd.

Our second picture shows a herdsman rushing with a small ax in his hand to fight a lion which has just slain a bull. A less bold fellow would have run the other way!

Picture-words of Sumer

We have before us eight picture-words which seem to have been used by the people of ancient Sumer, in the Land of Two Rivers.

"Fish" was written by a kind of a picture of a fish. Of course the picture was not always made in just the same way. One person would make it a little different from another person. After a while, these little differences made big differences. That was also true of other picture-words, and helps explain the many changes in writing since early times.



Picture-words of Sumer.

"Duck" was written by a curious sign. The bird seems to be standing on its tail! "Star" was an *eight*-pointed figure. This differed from Egyptian writing. The Egyptians made a star with *five* points. There is no reason to say that one way was better than the other. Stars are really round like the sun—they have no points at all. Sometimes when we look at them, they seem to have points, but that is only seeming.

The sign for "water" was very much like that of Egypt. "Arrow" was written by a simple line with marks at the back. This is believed to show that the Sumerians used feathers to help the arrow fly true to its mark.

A spear-head was used for the word "spear." The men of Sumer often tipped their spears with copper. Knives, axes and arrowheads were also made from copper or bronze.

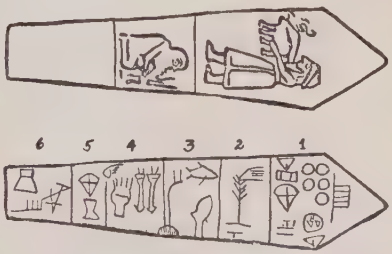
Writing the "Wrong Way"

The first picture-writing done in the Land of Two Rivers has been lost because it was written on wood or leather. By the time people there learned to write on clay and stone, they knew better ways of making words. They now usually wrote by sounds.

Let us see how that would be done in our own language if we did not have an alphabet. Suppose we wanted to write "bee-hive." We could draw a picture of a bee and place after it the picture of a hive. That would read "bee-hive," and would be very simple. In the same way, pictures of an eye and a doll might stand for "eye-doll" or "idol."

That was the sort of thing the people in the Land of Two Rivers learned to do. Their words were different from ours, to be sure, but the idea of sounding syllables was the same as we might use if it were not for the alphabet.

Some words written in that way are shown. You see two sides of a flat piece of clay. On one side, a man wearing a hat is holding an animal in his hands. This animal was brought to the church or temple to be used as a sacrifice for the city-god. Another man is kneeling below. On the other side of the slab of clay is picture-sound writing. It tells about gifts brought to the temple. The writing was done in what we might call "the wrong



Two sides of a slab of clay found in the Land of Two Rivers.

direction." The writer began at the right side and wrote toward the left.

That is just the opposite of what we do, so we think it is not proper. However, that is only our way of thinking. The Chinese as well as people of other nations write from right to left. For a very long time, the Egyptians also wrote that way.

An Old Planting Machine

There was not enough rain for good crops in the Land of Two Rivers, and water had to be taken from a river. It was hard to get from the Tigris, because the banks were high, but large amounts were taken from the Euphrates. Dikes were built. When the snow melted in the spring, the great river became larger and began to overflow; but the dikes kept it from flooding the towns. The flood water was saved and made to flow through small canals to places where it was needed.

A planting machine used in the Land of Two Rivers. (After Breasted.)

Large crops of barley and wheat were raised. To save work in planting the grain, the machine pictured was invented. Farmers would call it a "seeder," because it was used to put seeds in the ground. Notice the sharp point of the machine; it made a small trench in the soil when the seeder was dragged along by oxen.

Three men are shown in the drawing. The one at the side of the

oxen seems to be urging the animals forward. The man farthest back holds two handles of the machine, which he is guiding. The middle man is doing the most interesting thing of all—he is putting seed in a funnel. Sliding from the funnel, the seed went down through the tube underneath. Then it fell into the trench made by the point. Thus it was planted by aid of a machine! Men had learned a new way to save themselves labor and make farming more successful.

Cities, Kings and Bald Heads

Each city in the Land of Two Rivers had a *god* to which its people prayed. This god was served by a priest, and the priest was usually king of the city.

One of the most noted city-kings was named Ur-Nina. He ruled over the city of Lagash, and ordered much writing to be done to tell of things which happened during his reign. This writing was placed on pieces of stone and clay, many of which have been dug up in late years. The king boasted that he had built a great canal and several fine temples in which people could pray. Of course, he did not do the building. It was done by men who worked for him.

King Ur-Nina, his cup-bearer, and four others. All have bald heads. The king was made to seem very large compared to the other figures because he was supposed to be much greater.

Many rude pictures of Ur-Nina have been found. Look at the illustration and see if you can pick him out. That will not be very hard; he is, of course, the largest figure. I am sure that you will be surprised that there ever was a king who dressed in such a fashion. He is wearing nothing except a skirt!

Right behind the king is the figure of a little "cup-bearer." Her name was Anita. She seems to have stood near Ur-Nina most of the

time, holding a cup so that he could drink whenever he so wished.

There are four other figures in the sketch. They are believed to be four sons of the king. Notice that all persons shown have bald heads. This was not because their hair had fallen out—the sons and the little girl were too young for that to have occurred. It was because their heads were shaved. For many centuries bald heads were the fashion for men and children in the Land of Two Rivers. Statues of gods, however, were usually made with beards and hair.

Half-Savage Tribes on the Scene

Writing and the use of metal were the two main things which made the Land of Two Rivers great. There were half-savage tribes to the west and north who were not civilized. These tribes were kept out for a long time, but finally they came in and won control of the northern half of the land.

The newcomers were what we call Semites. They were half-savage, but they did not kill off the people they conquered. Instead they let themselves be taught writing and other arts. They were a bright-minded people, and added to the knowledge they received. They called their new country "Agade." Later it was spoken of as Akkad. For several centuries Sumer and Akkad were separate countries, but in time they were joined and the Land of Two Rivers bore the name of Akkad.

King Sargon giving a drink to a "sacred bull" from a "magic vase."

The most famous king of Akkad was Sargon, who won control over lands outside of Akkad. He sent messages written on clay to many parts of his kingdom. Clay "envelopes" were used to enclose the messages, so that they could not be read before being delivered.

An old story about Sargon says that when he was a baby his mother

took him to a river and placed him in a boat made from bulrushes. He floated in the boat, according to the tale, until lifted from the river by a kind-hearted water-carrier. The water-carrier took care of him until he grew to be a man and became king.

That story is very much like one about Moses, which I am sure you have heard.

Marduk and the World's Beginning

How was the world begun?

The people who lived in the Land of Two Rivers thought up stories to answer the question. Here is a story which makes the god Marduk the beginner of things:

"Marduk killed a dragon and split it in two. He hung up one of its halves to make the heavens. The other half he spread out under his feet to make the earth. He put the sun, moon and stars in the sky, and gave them laws by which they must move.

"Around the earth Marduk made a river-sea, which divided the earth from the home of the gods. No man could cross it unless he was given special permission.

"The side walls of the earth were made solid except for two great caves at the east and the west. In the morning the sun came from outer space through the eastern cave. It mounted higher and higher until noon; then it swept lower and lower until it left the sight of men through the western cave. During the night it passed under the earth back toward the eastern side.

"Marduk also lighted the moon and made it ruler of the lights of night. He told it to change its shape so that men could tell changes of time."

That story was told after a city called Babylon had become the most powerful in the Land of Two Rivers. The country was no longer known as Akkad; its name had been changed to "Babylonia," in honor of the city of Babylon.

Goblins, Imps and Demons

Goblins and imps were thought to exist in the Land of Two Rivers, and the people were in fear. They believed that the evil spirits wandered about the water's edge, or lay in wait in dark places to attack lonely travelers.

A goblin fighting against a good spirit.

What were these demons like?

Statues and sketches show them in all sorts of wild and unearthly shapes. The Southwest Wind was one of the worst. His face was human but it was twisted out of shape. Goat horns grew from his flat skull. A wide, half-open mouth showed ugly teeth. He had four large wings and a tail like that of a scorpion. His feet and hands had claws like an eagle's. Other goblins were pictured with the heads of lions or wolves, the scales of fish, the tails of bulls.

Against these evil spirits, good spirits often fought. The good spirits had strange forms, but were not hideous to look upon. Usually a good spirit had the head of a bearded man and the body of a winged lion.

Marduk preparing to shoot an arrow at a goblin or demon. The moon-god Sin is to be seen in the circle.

There was no end to the battles between the good and evil spirits—the war kept going on forever.

The story-tellers in the Land of Two Rivers said that once the goblins, demons and imps dared to attack the gods themselves. The evil spirits hoped to get power to rule over the world. They climbed the heavens and fell upon the moon-god, who was called Sin. He cried for aid, and the sun-god and the storm-god rushed to the scene. There were too many demons, however, and they beat back the gods who had

come to the rescue. The sky-god and the goddess Ishtar were hurled from their thrones.

It looked black for the rulers of heaven, but just then Marduk and three other gods appeared. They turned the tide. The goblins and demons were beaten and thrown down to earth.

This story may remind us of an account in the Bible of a struggle between good and bad angels.

New Homes for the Gods

Some people of ancient times believed that gods lived on mountains. Perhaps this idea came from the fact that mountain tops were hard to reach. If a person said that gods lived up there, no one could prove him wrong.

This picture shows how the tower may have looked before it fell to ruin.

The Land of Two Rivers was on a plain, and mountain peaks were too far away. High towers of brick were built to take the place of mountains as homes for gods. It did not seem good to have them live on distant mountains.

The most famous tower was built at Borsippa, in Babylonia. It is perhaps the "Tower of Babel" spoken of in the Bible. Only the ruins have been found but olden records give us an idea of how it looked. The picture shows the probable shape.

The tower was about one hundred and fifty feet high. It rose by seven stages, with a stairway leading from one to the other. There was a small praying-place at the top, where animals could be burned in sacrifice to the gods.

The seven stages stood for the "seven wanderers of the sky," the

sun, the moon, and the five planets then known. Each stage had a different color—gold, silver, black, orange, red, yellow, blue. The golden stage stood for the sun, and is believed to have been coated with real gold.

CHAPTER XII

BABYLONIA AND ASSYRIA

It was no fun to be a doctor in the Land of Two Rivers, four thousand years ago. Here is one of the laws the poor physicians had to worry about:

"If a doctor has treated a gentleman for a wound with a bronze lancet, and the gentleman dies, that doctor's hands shall be cut off."

This picture was carved into a stone containing laws in force during the reign of Hammurabi. The king is seen at the left receiving the laws (as the story went) from the sun-god.

Nor was that all. Another law said:

"If a doctor has opened an abscess on the eye for a gentleman with a bronze lancet, and has caused the loss of the gentleman's eye, his hands shall be cut off."

Doctors probably were not very anxious to operate in those days!

Men who built houses were also in danger, as witness:

"If a builder has made a house for a man, and it has fallen and killed the owner, that builder shall be put to death."

Slaves needed to be careful of what they said. One of the laws read:

"If a slave tells his master, 'Thou art not my master,' his master shall prove him to be his slave and shall cut off his ear."

Debtors sometimes sold members of their families into slavery. A law meant to protect people in debt follows:

"If a man is in debt and sells his wife, son or daughter, they shall work three years in the home of their master, but the fourth year they shall be given their freedom."

All these laws—and many more—were written in stone by order of a king of Babylonia (then the greatest country in the Land of Two Rivers). The name of the king was Hammurabi. Most of the laws had been in use long before his reign began.

The poor were, of course, less safe than the rich. The stone law-book provided:

"If a man has caused the loss of a gentleman's eye, his own eye shall be put out. If he has caused the loss of a poor man's eye, he shall pay one piece of silver."

Babylonia Is Conquered

Babylonia was not to keep its freedom forever. In the north-western part of the Land of Two Rivers was a city called Asshur. Its people were related to the Jews who lived some hundreds of miles away. The chief god of the city was also called Asshur. It is not known whether the god was named after the city, or the city after the god.

The city of Asshur was ruled by kings who wanted to have more and more power. They trained armies and sent them out to fight against the armies of near-by regions. In time, much of the surrounding country had been brought under the rule of the kings of Asshur.

The land came to be called Asshuria or Assyria (which meant "the land of the city of Asshur").

The kings of Assyria were not content to rule only half of the Land of Two Rivers. They wanted it all; and to get the rest, they waged

war against Babylonia, which lay to the southeast. Assyria won, and Babylonia became a part of the Assyrian empire.

Strangely enough, the Assyrians made many of the gods of Babylonia their own gods. One of these adopted gods was Marduk (some-

Assyrians trying to capture a fort. Some of the defenders of the fort are falling from the walls. Two of the attackers are trying to make a hole in the wall. The Assyrians wore beards and long hair. Bald heads had passed out of fashion in the Land of Two Rivers.

times called Baal). Marduk, however, was thought to be less great than Asshur—because Marduk's country had lost the war.

In writings left by Assyrian kings, the god Asshur is often mentioned. One king wrote:

"The majesty of Asshur made them (the enemy) feel small; they came and kissed my feet."

Another king declared almost the same thing when he said:

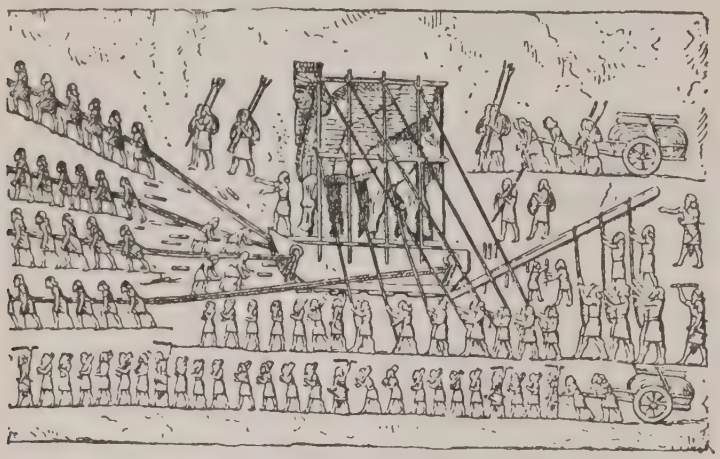
"Great fear of Asshur made the people of that region come and take to my feet."

One of the most noted Assyrian kings was named Tiglath Pileser. He ordered someone to write the following words in clay:

"Asshur and the other great gods who have made me great by giving me strength and power, told me that I must make my country bigger. They put

mighty weapons into my hands. Then I overthrew kings and cities, foes of Asshur."

King Tiglath Pileser was the terror of all the nations near Assyria. He boasted about his cruel wars. In speaking of a campaign against certain tribes—called Hittites—which lived between Assyria and the Mediterranean Sea, he said:



Slaves moving a huge statue of a winged lion.

"With their bodies I covered the mountains and the heights. I took away what they owned. What was left of their army—six thousand warriors—took to my feet (gave up) and I carried them to my own land."

Of another fighting adventure, this king declares:

"Asshur, the Lord, sent me to distant kingdoms which did not admit my rule. Through sixteen mountain ridges, I marched. I crossed the mighty river. Twenty-three kings fought against me. I destroyed their armies. With the corpses I strewed the mountains and the walls of their cities like straw. Their treasures I carried off, their towns I burned with fire. To the kings, I granted favor. I spared their lives, making them swear the oath of my great gods."

Kings Who Said They Were Great

One king of Assyria was called "Asshurnazirpal." In spite of his long name, he made himself remembered. To do this, he caused certain servants to write about his "great" deeds. Here is one of the things he made them write:

"I am the king, the lord, the strong, the gigantic, the first, the mighty, a lion and a hero—Asshurnazirpal."

If he were living to-day, we should surely call him "big-headed." In those days it was the custom for kings to boast. They said, "I conquered the country," or "I built a huge canal."

An Assyrian king and his driver on a lion hunt. The three horses are galloping over a badly wounded lion. The king appears to be aiming at another beast not shown in the picture.

Such words are amusing to us, because we know that it was the poor soldiers in the armies who went out and did the fighting. We know that slaves and other workmen built the canals.

The king usually sat home in his palace while canals and buildings were being made. In war, he often went with his army, but kept himself in a safe place. We seldom hear of the death of a king in battle.

The kings were very fond of hunting. Lions were most exciting to kill. In many cases the kings made soldiers or other servants go into the forests and trap lions, and bring them to the palace where they could be placed in cages.

When the king felt like hunting, a lion was let loose in the royal hunting grounds, and the king chased it in a chariot. The horses were driven by a soldier, while the king sent arrow after arrow into the body of the fleeing beast.

Another king with a long name was "Sennacherib." He is chiefly known for a very cruel act. He ordered the city of Babylon to be destroyed. Ever since the capture by Assyria, the people of Babylon had tried to become free again. Sometimes they succeeded for a while. This king decided that he would have the city "blotted from the face of the earth."

This is how he told about the deed:

"The city and the houses, from the bottom to the top, I destroyed, dug up, in the fire I burnt. The fortress, walls and temples, I threw down, and placed the rubbish in the canal. So that no one would find the place of this city, I covered it with water."

CHAPTER XIII

PHŒNICIANS, HEBREWS AND THE ALPHABET

Close to the Land of Two Rivers was a little country called "Phœnicia." (The way to pronounce it is Fe-nish'-i-a.)

This country was noted for its brave sailors who sailed and rowed far and wide over the great Mediterranean Sea. For three or four hundred years, they were the world's chief sailors.

The Phœnician sailors spread knowledge to the towns and cities they visited. Their country had learned things from both Egypt and the Land of Two Rivers. The sailors passed the knowledge along to people with whom they traded.

What did the Phœnicians have to sell? Garments of woven wool, glass perfume bottles, blue porcelain dishes, ivory combs, platters of bronze and silver, golden ornaments, and splendid robes made purple by dye taken from a certain kind of sea snail.

What did the Phœnicians get for these things? From northern Africa they obtained ivory, ostrich feathers and gold. From what is now called Spain, they received silver, iron, lead and copper. Spices and jewels came to them from countries which traded with far-away India.

Now and then the Phœnicians built little towns on islands or coasts of the sea. One of these was Carthage, in northern Africa. Carthage later became a city of great power. It was the strongest foe the Romans met with when, in later times, they were trying to win control of all the land around the Mediterranean.

Adventures of the Hebrews

Among the neighbors of the Phœnicians were the Hebrews, whose chief city was called Jerusalem. Their country may best be spoken of as Palestine, though it once went by the name of Canaan, and later was divided into two parts: Israel and Judea.

The armies of the Hebrews were stubborn in battle, but were not especially large. At one time, a king of Assyria came into Palestine with a huge army. Cities were robbed and burned. Ten of the twelve Hebrew tribes were carried away to Assyria. They were not set free, and no one knows exactly what happened to them. Perhaps they married into Assyrian families and were forgotten. Some of them may have escaped and wandered far into Asia. The mystery of the "lost" ten tribes has never been solved.

Two tribes were left in Palestine, and have been called Jews since that day.

Before the Hebrews lived in the land of Palestine, they were wandering tribes who went hither and thither in the Arabian desert. They were always looking for some spot where green grass grew so that their flocks of sheep and goats could eat. They then lived in rude tents which were set up wherever they decided to stop for a while.

The Hebrews were once wandering tribes who lived in tents. Sheep are to be seen in the distance in this picture. (After Breasted.)

By and by they came to a land not far from the great Mediterranean Sea. The people there were much better civilized than the Hebrews. They lived in towns, and their houses were built of brick.

Some of the Hebrews then settled down in the new-found land and built brick houses for themselves. Others wandered to Egypt. For a time, the Egyptians treated them fairly well; but then a king or "pharaoh" made them slaves. After the Hebrews had been in slavery for about three hundred years, a man named Moses told them that they ought to try to escape.

The Flight to the Promised Land

The Hebrews listened to the advice of Moses, and escaped, although the Egyptian king is said to have sent soldiers to chase them. After their flight from Egypt, they wandered for many years through forests and deserts. They still looked upon Moses as their leader. He seems to have been a very stern man, who wanted to have his people live clean, upright lives. He also wanted them to worship "only Jehovah, the Lord," instead of many gods like the people of Egypt.

Moses hated the idea of the Hebrews praying to idols; so you can be sure that he was angry when one day he found them kneeling in front of a golden calf. At that time, Moses is said to have held in his hands two slabs of stone upon which were written laws. He told the people that "Jehovah the Lord" had given him the laws on a mountain top; but he was so angry about their praying to an idol that he broke the slabs of stone into pieces.

Later the slabs were replaced, and the people were able to read the Ten Laws or Commandments. This is the first commandment in full:

"I am the Lord thy God, which have brought thee out of the land of Egypt, out of the house of slavery. Thou shalt have no other Gods before Me. Thou shalt not make unto thee any graven image, or any likeness of anything in heaven above, or earth beneath, or water under the earth. Thou shalt not bow down thyself to them, for I, the Lord thy God, am a jealous God, putting the sins of the fathers on the children to the third and fourth generations of them that hate Me; and showing mercy to them that love Me and keep My commandments."

That law frightened the Hebrews, and from that time on they tried to be faithful to Jehovah. Moses died before his followers were settled in the country which was to be their home—Palestine. This country, Moses had told them, had been promised by Jehovah. It was obtained only after much fighting and bloodshed. Thousands

of people who lived in it were killed, according to the Bible record.

When the natives had been killed or driven north, the Hebrews settled themselves west of the River Jordan and the Dead Sea, not far from the coast of the Mediterranean.

The Babylonian Captivity

Let us return for a moment to the Land of Two Rivers. The people in the southern part (Babylonia) had been conquered, but they were not contented and fought to be free from Assyria. Even after the great city of Babylon was burned and flooded, revolts kept on occurring.

A battle scene, as shown by an artist in the Land of Two Rivers.

Finally, Assyria was beaten for good and for all. Babylon was built again. The new city was of great beauty and splendor. The walls were high and contained large colored images of bulls, lions, and other animals. A king called Nebuchadnezzar ordered a small mountain to be built in the city to make up part of his palace grounds. Great piles of bricks were covered with earth to form the mountain. The sides were arranged in terraces. In the soil grew tall trees and all manner of flowers. The gardens on this man-made mountain are often spoken of as the Hanging Gardens of Babylon. They are now only ruins.

The armies of King Nebuchadnezzar fought against the armies of other lands, and the king became very powerful. At one time he

sent an army down into the little kingdom of the Jews. The city of Jerusalem was destroyed and a great number of the people were carried back to Babylon as captives. For years, the Jews were kept in Babylon. They did not like to stay there, but it was good for them in certain ways. They learned to be better civilized.

This sketch was cut in clay by an artist in Babylonia. It is believed that it may show "Adam and Eve" in Edam (or Eden). The serpent is behind Eve and the fatal fruit hangs from a queer-looking tree. The story about this fruit was probably told to the Jews during the Babylonian captivity.

While in Babylonia, the Jews may have heard the story told in that country about the first man and woman, "who lived in Edam" (or Eden). They may also have heard about "the great flood" which was said to have spread everywhere.

The Jews might never have been freed from Babylon; they might have become "lost" like the Ten Tribes of former days; but good fortune was with them. A king who lived in Asia (east of the Land of Two Rivers), wanted greater power. That king was named Cyrus, and he ruled over people called Persians. His armies kept winning more and more land. They came to Babylon and gained control of the city. The Jews were freed, and went back to their own country. After that the Persians ruled over the Land of Two Rivers.

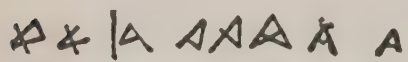
The Jews took up life in Palestine once more, and were happy to be past their captive days. The holding of the Jews in Babylon is known as "the Babylonian Captivity."

Twists and Turns of the Alphabet

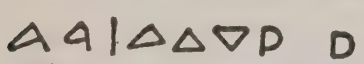
It is really not easy to learn what letters stand for. If a man from Mars could come to earth, he might be able to understand the picture of a bird or beast, but what would he say if he saw "A" or "B"? He would be much puzzled, and so would we all if we had not learned about those letters long since.

You remember the alphabet of old Egypt. Instead of letters, they had pictures, and each picture stood for a sound. Thus the picture of a lion (*labo* in Egyptian) was written for the "l" sound.

The way the picture-signs were written changed with later times. The Phœnicians and Hebrews learned many things from the Egyptians, and probably obtained their alphabets in that way, changing many of the letters.



This shows some of the changes our letter "A" has passed through.



The ups and downs of "D."

How "E" lost its "tail."

"S" was once written like a "w."

You see pictured some of the changes which happened to letters of the alphabet. The letters to the left were used by the Phœnicians about two thousand five hundred years ago. The others are later changes made by Greeks and Romans.

The Phœnicians wrote their words from right to left, or "backwards." So did the Greeks for quite a time, but then they changed and wrote from left to right, just as we do. That explains why letters were turned clear around.

Most of our letters show little or nothing of the original picture idea, but "M" and "O" are exceptions.

"M" comes from the sign for water, a wavy line. "Mim" was an ancient Hebrew name for water. "O" was the first letter of an ancient name for eye. It was the shape of the pupil of the eye.

The word "alphabet" came from the names of the first two letters of the Greek list—alpha and beta ("A" and "B").

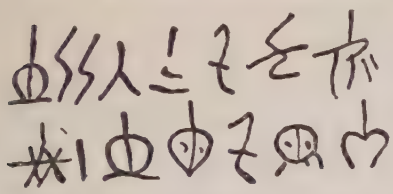
The Island of Crete

The island of Crete lies in the eastern part of the Mediterranean Sea. It is between Egypt and Greece.

The people of Crete learned to write about five thousand years ago.

Some things were taught the Cretans by sailors and traders from Egypt and Phœnicia.

Sound writing may have been taught by the Egyptians. If so, the signs were much changed by the people of Crete. Cretan writing is one of the mysteries of ancient times, because no one has yet been able to read it. The best which has so far been done, is the discovery that some of the markings stand for certain numbers.



Some day scientists may learn the meaning of this Cretan writing, but at present it is a puzzle.

Although we cannot read the writing, we can tell something about the civilization of the island from ruins of cities and villages.

The greatest city in Crete was made up chiefly of brick houses, in which lived metal-workers, painters, traders, and clay-workers. The largest building was the king's palace. It covered five acres of ground, and seems to have been at least four stories high. What is said to have been the throne of the king is shown in one of our illustrations. The Cretan artists were more skillful than those of Egypt. Their paintings on palace walls are true to life. One painting shows a great crowd of Cretan "lords and ladies" gathered around the king. Jars of tremendous size—about the height of a man—were found in the basement of the palace. These were used for storing grain and oils.

This throne is believed to have been used by kings of olden Crete.

The people of Crete seem to have been related to the ancient Greeks. Some of the things learned from Egyptian and Phœnician sailors were passed on to Greece.

CHAPTER XIV

ANCIENT GREECE

One land the Phœnicians used to visit was Greece. Greece was inhabited by a race of people who became the greatest of ancient times. They were far behind Egypt and the Land of Two Rivers in becoming "civilized"; but when they did get started, they worked themselves ahead of all.

Greece is divided into two parts. The lower part is almost an island, being joined to the upper part by only a thin strip of land. Just south of that strip is a spot where scientists have found relics of people who were among the first to become partly "civilized."

The city of Mycenæ was built at this spot. Walls were reared around it. Lions were carved in stone above a large gate to the city. The lions look something like those sculptured by tribes in the Land of Two Rivers and other eastern places.

There was a graveyard inside Mycenæ, not far from the city gate. With the bodies of people were buried articles made of gold, silver, copper, bronze and glass.

The people in the city did not do all their eating with their hands. We know this because bowls, ladles and spoons were put inside the graves—so that even the dead could eat properly!

Greek Poems and Writing

The earliest Greeks seem to have entered Greece about five thousand years ago. They were related to tribes which lived in the Land of Two Rivers, in Persia and in northern India.

The people who settled in Greece were fortunate. Their new country was beautiful. The climate was mild and the air pleasant to

breathe. There were hills and mountains scattered over the country. The nearby sea was dotted with tiny islands, which could be reached by boat without much trouble. Many Greeks went to those islands to live.

How did the Greeks learn to write? We cannot be quite sure, but it is believed that they were taught the alphabet by sailors and traders from Phœnicia.

The paper used in Greece was made from the papyrus plant. It was pieced together by the people who lived in the Phœnician city of Byblos. Because it came from that city, the Greeks often called papyrus "byblos." When they wrote books on rolls of such paper, they spoke of them as "byblia." That is where our word "Bible" comes from. Bible means simply "the book."

Cities of the Greeks

The Greeks built up great cities, among them Athens, Corinth, Thebes and Sparta.

Sparta was in southern Greece, and ruled much of the country around its walls. Some of the people of Sparta were little better than slaves; they did the work of raising crops and making tools and weapons. The "free citizens" were sure to be soldiers. Their work was to fight in the army whenever the city went to war against another city or town.

From childhood, boys were brought up with the idea of being trained to join the army. Babies that were not healthy were "exposed"—they were placed on a hillside or in the woods outside the city and left to die. Thus only the stronger ones lived. At the age of seven, boys were taken from their homes and placed under the care of the city. They then spent most of their time in sports and military drill. Thirteen years were passed in this manner. The boys were taught a trifle about reading, but the main thing was to teach them to fight in war. When they were twenty years old, they joined the army and fought wherever they were ordered.

Sparta gained power in many parts of Greece. At one time almost all the country was under its rule; but the power was not lasting. The Spartans were harsh rulers and were driven out of most of the cities they had conquered.

Far greater than Sparta was Athens, and of that city you will read in later pages.

Music Among the Greeks

Music played a big part in the life of the Greeks. Almost everybody knew something about playing an instrument of one kind or another. The harp was the favorite.

The three Muses playing on stringed instruments.

A picture is shown of three Greek goddesses. They were called "Muses" and from that name has come our word *music*. The Muses are playing some of the common stringed instruments of olden Greece.

Flutes were also widely used. The earliest flute was simply a hollow reed with holes cut in the side. The Greeks improved this simple flute. They made it out of more lasting materials, and often placed two or more together, with a single wooden mouthpiece.

Flutes were usually played by hired musicians. It was thought to be a disgrace for members of "the better class" to play the flute. That was mainly because of the way the cheeks of the player bulged or sank.

When boys in Athens became thirteen years of age, they received their first training in music. They learned to play the harp and recite poetry at the same time. They were also taught to sing in chorus. The boys had to behave themselves during practice. Listen to what a Greek writer says about that:

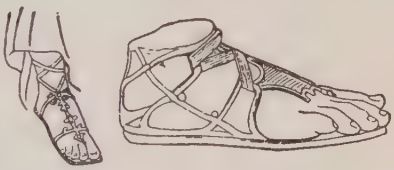
"The boys from the same section of the town must march thinly clad (though the snow be thick as meal) to the house of the harp master. There he will teach them a famous tune. If anyone acts silly, he gets a good thrashing."

To "act silly" while singing was supposed to "drive away the Muses."

Shoes, Feet and Sandals

The Greeks did not cramp their feet with tight-fitting shoes. They either went bare-foot or wore a light covering which left the feet plenty of room.

The most usual foot-gear was the sandal. This really was not intended to *cover* the foot, but to place under it a sole to protect it from gravel and sharp stones during walks out of doors. The sole was usually made of layers of cowhide. It was bound to the upper part of the foot by simple leather strips. The picture shows how sandals were placed over bare feet.



Two styles of sandals worn by ancient Greeks.

The Greeks tried to see how pretty they could make the strips of leather. They cut them into patterns and colored them red, purple, blue or yellow. Sometimes they even made them look like gold by covering them with gilt.

When the weather was cold, travelers sometimes wore "boots." These had soles like the sandals, but instead of straps above, there was a solid covering of leather or felt which extended well over the ankle.

Before entering his home, or the house of a friend, a Greek would stoop and take off his sandals or boots. Both men and women went bare-foot inside the house. Children were bare-footed almost all the time.

Greek wrestlers.

Wrestling and Discus-Throwing

Ancient statues and paintings help give us an idea of how Greek athletes carried on their sports. Drawings of two of such statues are shown. Observe how well the sculptors did their work.

The Greeks had two kinds of wrestling. In one form, each wrestler tried to make the other lose his balance and fall upon the floor. Unless badly hurt, the man who was thrown would jump up and renew the struggle. If he was thrown twice more, he lost the contest.

The other kind of wrestling began in the same way, but after a man was down, his rival would kneel or lie upon him and try to keep him from rising.

Tricks which we now frown upon were used. It was thought all right for a wrestler to stoop suddenly and grasp one of his opponent's legs, so that he would fall backward. To sprain fingers or toes was also permitted, as well as a certain amount of choking.

Throwing the discus.

Throwing the discus was another form of amusement. The discus was a disk which weighed three or four pounds. At first, it was made of stone, but copper or iron was the material used in later times.

Boxing in Olden Greece

In boxing matches of the present day, two men get into a prize-ring and pound each other as hard as they can. If both are standing at

the end of a certain number of rounds, the judge of the contest picks the winner (the man who has punched the hardest and most cleverly). Sometimes one of the boxers is "knocked out." This means that he has been hurt so badly he cannot rise from the floor.

Such contests are called—"sport."

Greece also had boxing matches. The picture gives you an idea of how they were conducted. On each boxer's hands were tied straps of cowhide. Only the tips of the fingers were left uncovered. The ends of the straps were tied carefully around the wrists so as to protect veins there.

The cowhide straps usually softened the blow slightly; but in some cases, lead buckles were attached. This made the blow far worse than with the bare fist.

Greek picture of a boxing match.

Blows were chiefly aimed at the chest, temples, nose, mouth and chin. Teeth were often knocked out. The men fought until one or the other lifted his hand to show that he was beaten.

The boxer had to live up to certain rules; if he broke a rule, or killed a man "on purpose," he was punished.

In certain cases, Greek athletes boxed and wrestled at the same time. Straps around the hands were not used in such contests. Blows were dealt with bent fingers, not with the fist.

The Olympic Games

Every four years, Greeks from all parts of the country were in the habit of gathering at a place called Olympia. There they held races and other contests which went under the name of "Olympic Games."

Boxing and wrestling matches were held at Olympia, along with discus-throwing. Foot-races, including both the "dash" and long run,

were also on each program. Perhaps most exciting of all were the chariot races. Every driver had two or four horses to whirl him around the course. The winner in each contest was given a wreath of olive leaves, or else a branch of palm.

The Olympic Games brought thousands of persons together. Not only did they watch the sports; they also talked about things of the mind. They learned what was going on in the country at large. Painters sometimes brought their pictures to Olympia, and poets came to recite their latest poems.

Feasting and Wine Drinking

Three meals a day was the rule with the Greeks, just as it is with us. Their chief meal came about sunset. The food was simple for the slaves and the poorer "free men."

The rich, however, often feasted heavily. They enjoyed beef, mutton, goat meat, pork, cakes, wines and fruits from distant lands. The food was passed around by slave girls. Forks were not used. People knew nothing about such table tools, and often ate with their hands. Some men were in the habit of lying down on couches while they ate.

Drinking-horns.

After the meal, a certain kind of dough was passed around. The diners pushed their fingers in this dough, and the grease was removed. A bowl of water was also passed around with perfumed soap and a towel, so that people could finish cleansing their hands, after soiling them during the meal!

Very often the men held great feasts. The wives were not allowed, but there were slave girls who acted as waitresses and dancers. If the men were bright-minded, there was an exchange of worthwhile talk and sparkling wit. If they

were coarse fellows, the feast became unworthy of humankind. At these feasts, wine was usually drunk too heavily.

Drinking-horns such as those pictured were often used. They were sometimes filled with wine and emptied at a single gulp. In other cases, the wine was poured into them at the top and let to flow out at the bottom—through the mouth of the animal carved on the horn. The wine was caught in a goblet held beneath.

Greek Women and Their Hair

Greek women seem never to have bobbed their hair—at least if we may judge by statues. I am showing you some heads which belonged to statues made in Athens. One thing you will notice is that the eyes are blank. That is because the sculptors failed to make the eyes definite. One woman has rather foolish-looking ringlets, but the others seem to have dressed their hair in a becoming manner.

Greek women had still other fashions in headdress. Often they draped the hair in such a way that the ears could be plainly seen. Veils were commonly worn when women ventured outside their homes. Hats were seldom used, except for long journeys.

Heads of Greek women.

Women in Athens had quite a great deal to do inside their homes. There was spinning and weaving. (Of course there were no clothing "mills" in those days; cloth had to be made in the different houses.) That sort of work was likely to be tiresome. If the woman was rich, she put her slaves to doing it, while she embroidered or did some other light and enjoyable work.

The women were allowed to watch certain kinds of plays, and on

holidays they might march in religious parades. Those were the chief times at which they were able to get outdoors.

Since they were kept so much inside the home, it is no wonder that few Greek women ever proved themselves great. There was one noted poetess named Sappho. She was a Greek born on an island in the Ægean Sea. After she was grown up she spent some of her time on the Greek mainland, and her poems became known to almost everyone.

Greek Money

The idea of using money was probably brought to Greece by travelers from Asia Minor.

Iron was one of the first metals used for coins. In Sparta, iron money was common for a long time. Other cities decided that iron was too clumsy to handle and made their coins from copper, silver, and gold.

The "heads and tails" of a silver coin used by the Greeks.

Some silver coins contained enough silver to be worth from forty-four to sixty-six cents at the present time. Of course, people were then able to buy a great deal with a silver coin, because silver was scarce.

There were two kinds of gold money, white and yellow. The gold coin chiefly used contained enough metal to be worth about $5.80 to us. To many Greeks, it seemed like having a small fortune to own a gold-piece.

Why do you suppose coins were marked? It was so that people could depend on the value of the money. Each city made coins of its own. The stamp meant:

"We guarantee that this coin is pure, and that the metal in it weighs as much as it should."

Coins were at first of many shapes, but the round shape came to be common. Metals were melted and poured in molds of a roundish

shape. "Blanks" were taken out when only partly cooled. They were pounded against a certain design, and it made a mark on the coin.

At first a mark was intended for only one side; but the other side showed impressions of the pounding. The Greeks decided that they might as well make pictures on both sides.

Workmen and Vast Paintings

The men who did the hard, rough work in Greece were of three classes: slaves, foreigners, and poorer freemen.

Greek smiths beside a forge.

Records do not show just how many slaves there were in Greece, but it seems that there were as many slaves as all other classes put together. Most slaves were set to work on farms, but there were some in cities. When slaves were hired to work on public buildings, they seem to have received the same wages as other workers—from three to six "obols" a day. That would be only from nine to eighteen cents in our money.

In Athens, each trade or craft had its special street. On one street there were workshops for potters, on another for sandal-makers, on still another for smiths.

Clay vessels made by ancient Greeks.

The Greeks were skillful in making vases and pitchers. These were almost always formed of clay. Their shapes were graceful and pretty. Some of the best artists in Greece spent part of their time making paintings on the outside of vases. These paintings give us facts as to how the Greeks lived. Several of the pictures in this chapter were taken from Greek vases.

Rings and Cameos

Rings were worn on the fingers in very early times. The Greeks seem to have taken the idea from the Egyptians. We can tell that because Greek rings look so much like those made in Egypt.

Greek jewelers paid most attention to the metal part of the rings they made. The stones were usually small. They were polished, but were seldom cut like stones of the present time.

The Medusa cameo on the bottom of a plate.

The gold or silver in rings was often shaped like a horseshoe. At the open end of the "horseshoe" a piece of wire was run across, piercing the stone and holding it in place. In other cases, the stone was set in gold. The topaz, crystal and garnet were among the favorite stones used for the rings. Sometimes, images were cut on the stones.

Cameos came into use toward the end of the Greek time of greatness. Cameos are carvings in a stone with white and reddish layers. The Greeks used them for pendants and earrings; and also set them in cups and plates.

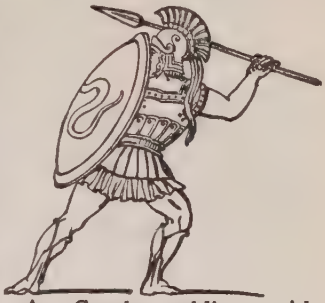
A cameo carved for the bottom of a shallow dish is pictured. It shows the head of Medusa. A Greek myth said that this head would turn people to stone if they looked at it. I wonder if that was why they put it on the *bottom* of the plate.

The Battle of Marathon

The Land of Two Rivers was at this time in our history under the power of Persia. The Persians had also won power over most of Asia Minor, including land only a little more than a hundred miles from Greece. Greeks had built some cities along the coast of Asia

Minor, and these got into trouble with Persia. As a result, the Persian king decided to send an army to invade the Greek mainland.

The Greeks learned that the ships with Persian soldiers were planning to land near the town of Marathon, not very far from Athens. Everyone was excited. A messenger was sent down to Sparta to ask for help. The Spartans promised to come, but were slow in getting started toward the point of battle. As a result, the burden of defense fell upon Athens. Eleven thousand Athenian soldiers marched toward Marathon. They were joined by a thousand Greeks from the north of the country. The Persians had already landed, but they were beaten in battle and driven back to their ships.



A Greek soldier with shield and spear.

Legend says that news of the defeat of the Persians at Marathon was carried to Athens by a man who ran more than twenty-six miles, and fell dead when he had given the message. Long-distance runs are now often called "Marathons," in memory of the legend.

CHAPTER XV

GREEK GODS AND MYTHS

The earliest Greeks seem to have bowed down in prayer before the great forces of nature—thunder and lightning, wind and rain, flood and earthquake.

"There are *powers* back of all these things," said the Greeks. "Let us worship them."

This pine tree was one of the first "temples" of the Greeks. An altar is to be seen at the base.

So it was that they knelt to the Spirits of Fountains and Trees, of Caves and Mountains. They did not then speak of such gods as Zeus and Hera, Hades and Hermes.

Trees were supposed to have a special sacredness. Certain ones were thought sacred to certain god-powers. One of our pictures shows a part of a pine tree. From branches are hanging rings of brass, which the wind would blow together and thus make a musical sound. Below the rings is an altar. The Greeks placed gifts on such altars.

Large caves were worshiped because of the mysterious darkness within. People tossed dice in front of a certain cave and thought that the god-power would make the dice fall in such a way as to answer questions.

In time the Greeks became tired of not knowing how the gods looked. Statues were made as images of the spirits of gods. What shape did they give to their gods? The human shape. That was natural, for what other creature on earth could they think so nobly made? It was also natural that they should make their gods look like the most beautiful persons who could be found.

Even after the gods had been put into human shape, their homes remained mountains, caves, trees and fountains. The home of the chief gods was Mount Olympus. Other gods were located here and there all over the land and sea.

Statues of gods and goddesses were often placed under the branches of trees. This was to protect them from rain and snow, to give them shelter. Sometimes statues were placed in hollows made in tree trunks. The tree-home for the gods was the beginning of the temple. Later on the Greeks made marvelous temples to house their gods.

A large statue of a goddess is to be seen under a tree, with statuettes nearby.

A War of Giants and Gods

The Greeks thought up stories to tell about how the world was begun, and how giants, gods and people came to be.

First of all, said the story-tellers, the world was all mixed up. Fire, earth and water were in a jumble. Then Heaven and Earth came to be. Heaven was a god, and Earth was a goddess. They had many children who were giants. One of these was Cronus, ruler of time.

Cronus was told by his father that one of his sons would take away his power. Hoping to prevent this, he swallowed all his children—except one. The one he did not swallow, was named Zeus. Little Zeus was saved when his mother gave the old giant a stone dressed up like a baby to swallow. She then hid the child in a cave.

When Zeus grew up, he heard that his brothers and sisters had been swallowed and became angry. Cronus was tricked into drinking liquor which made him cough. When he coughed, out came the children and the stone dressed like Zeus!

The sons and daughters of Cronus were angry, and the father was angry, too. A war was started. Cronus and most of the giants were

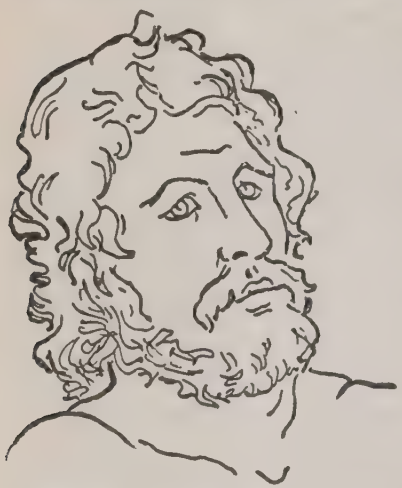
on one side. Zeus and his brothers and sisters formed the other side, helped by a few of the giants.

Zeus and his helpers took their stand on the top of Mount Olympus, while the giants were on a near-by peak. The fighting was long and terrible. Trees, bowlders, and lightning bolts were hurled back and forth.

After the war had gone on for ten years, the giants were beaten. One of them, Atlas, was made to hold up the sky. Cronus ran away to Italy. Zeus and his brothers and sisters became gods and goddesses, and ruled the world.

Zeus, King of the Gods

Free from all fear of Cronus, Zeus and two of his brothers (Poseidon and Hades) divided power over the world. Poseidon became ruler of the seas, while Hades took control of the underworld, the kingdom of the dead. Zeus was said to have power over the bright world of day and to be king of the gods. He lived on Mount Olympus.



Zeus, as pictured by a Greek artist.

Zeus was married more than once. His first wife was named Metis. It was Metis who made Cronus cough up the children. Later Zeus married a goddess named Hera. She was good-looking, but her nature was jealous. That was unlucky, indeed, because Zeus did not prove a good husband. He had love affairs with quite a few goddesses and beautiful women. Whenever Hera heard of such an affair, she grew hot with rage. Sometimes she simply scolded him, but more often she tried to take revenge upon the person who caught his fancy.

The Greeks declared that in some cases Zeus assumed the form of an eagle. An old Greek picture shows Zeus as an eagle bearing a pretty maiden up to heaven. The maiden had been picking flowers on a mountain side. Zeus, flying overhead, saw her and swooped down and carried her away.

This old Greek drawing shows Zeus in the form of an eagle carrying the mountain maiden to heaven.

A Visit to Mount Olympus

Most of the gods and goddesses of olden Greece were supposed to live on the top of Mount Olympus, a peak in the far north of the country. Their homes were palaces of a golden color. The finest belonged to Zeus, who was a daily host to the others. They gathered in a great hall and feasted on ambrosia and nectar, while they talked of affairs in heaven and on earth.

Ambrosia, a delicious food, gave everlasting life to all who ate. Nectar was a sweet and delightful drink. During the feasts, Apollo, god of the sun and of music, played on his lyre.

The gods wore golden sandals with which they could walk on either water or air. They moved as fast as the wind, sometimes even faster.

The goddess of love and beauty was Aphrodite. She was the mother of Eros, the little god of love whom the Romans called Cupid.

Ares was the son of Zeus and Hera. His parents spent much of their time quarreling, so it seems natural that Ares should have been the god of war.

Athena was the goddess of wisdom. She was said to have been born from the brain of Zeus. The people of the great Greek city of Athens looked upon her as their defender.

Hermes, the messenger god, wore a winged cap and winged shoes when out to deliver a message.

Pan, the Woodland God

The god of forests and flocks was called Pan. He was the son of the messenger god, Hermes, and a woodland nymph. (Nymphs were spirits who watched over woods and rivers and springs; they were pictured as beautiful young women.)

The nymph who was the mother of Pan, lived in southern Greece, in a district called Arcadia. It was there that Pan grew up. He usually showed himself a friendly god, dancing around with the nymphs or helping the shepherds care for their sheep and goats. The Greeks thought of him as having the legs of a goat.

A story about Pan says that he fell in love with a nymph named Syrinx. She was a great beauty, but had vowed never to love any god or man. One day Pan met her and told her how charming she was. Not wishing to listen to compliments, she fled—with Pan in swift pursuit.

Just as the god was about to throw his arms about her, Syrinx was changed into a reed by the goddess of earth. When Pan beheld, instead of the fair nymph, a river reed, he sighed deeply. His breath against the reed made a sound as of music.

"Ah!" he exclaimed. "You shall be mine after all, because I shall turn you into a musical instrument."

So saying, he cut the reed into seven parts of unequal length and made the shepherd's pipe, which he called a syrinx in honor of the nymph. Flutes are sometimes spoken of as "pipes of Pan," in memory of this myth.

Besides gods and goddesses, the Greeks often spoke of wondrous heroes. Among these were Heracles, Jason, Perseus and Bellerophon.

Heracles was supposed to have mighty muscles. At one time he was said to have wrestled with a lion and beaten it. At another time he "held the sky on his shoulders" while Atlas went off to fetch some golden apples. The "golden apples" may have been a name given to oranges. In Roman stories, Heracles came to be called "Hercules," the name by which he is now commonly known.

Fire and the First People

The Greeks invented stories to explain how people were first made, and how man got fire. The first animals and the first man, says one story, were made by two giants who had been friendly to the gods during their war with Cronus. Prometheus, a good-hearted giant, and his brother were told to create birds, beasts and men. Prometheus let his brother make the birds and beasts. The brother was a careless fellow. He gave away too many gifts to the beasts and birds—swiftness, wings, strength, boldness and so on.

"What have you left for man?" asked Prometheus.

"Alas! I have given away all the main things," returned the brother giant.

"Something must be done," said Prometheus. "I'll try to get fire for him."

Zeus had forbidden fire to be taken from heaven. It was supposed to be sacred to the gods. The noble giant, however, was unwilling to let the man created from clay and water suffer because he was weak. He went up to heaven and lighted a torch near the sun. Bringing the torch back to earth, he gave it to the first man.

For doing that, Prometheus was harshly punished. He was fastened to a great bowlder near a mountain peak. A vulture came around each day and sank its beak cruelly into his flesh; but Prometheus bore his pain without anger. He knew that he had done something for mankind.

The Greek Story of the First Woman

The Greeks said that the first woman had been made in heaven. They spoke of her as Pandora, which means "all-gifted." When she was created, each god gave her a different gift. Apollo gave her musical talent, Aphrodite gave her beauty, and from other gods she also received valuable things.

Pandora was sent to earth. Prometheus, the giant who had given

fire to man, was still bound to the great bowlder; but his brother, Epimetheus, received the fair woman into his house.

The gods, according to one Greek story, had given Pandora a box full of wedding presents. Each present was a blessing. Pandora was not supposed to open the box, but she grew curious and tilted the lid a little. Away flew the blessings, one after another—all except Hope, which remained as a comfort to man.

Another story says that Epimetheus had in his house a jar, filled with evil things—sickness and plagues, envy, spite and revenge. These were left after birds, beasts and man had been made. Pandora was warned not to touch the jar, and for a time she obeyed the warning. Then a day came when curiosity got the better of her. She tiptoed to the jar and lifted the lid. Out flew the evil things, the troubles which have since made the world unhappy. Only Hope (a good thing) was left when Pandora put the lid back on.

These stories sprang from the wish of the Greeks to explain why so many things were wrong with the world. For my part, I do not see why they should have tried to put so much blame on women.

Hades and His Queen

In the dark underworld, the Greeks believed, lived a mean god named Hades (or Pluto). He ruled over the spirits or "shades" of the dead—over all who did not go to Elysium, a land of joy. The realm over which this god ruled came to be called "the House of Hades" or simply "Hades." The wife of Hades was the lovely Persephone, daughter of the goddess Demeter.

The dark underworld was not a pleasant place to live in—why, then, did Persephone become the wife of Hades?

The Greeks answered the question by saying that she could not help it. They declared that one day she stopped to pick up a strange-looking flower. As she touched it, Hades, riding in a chariot drawn by four horses, sprang up through the earth. Seizing Persephone, he carried her to the land of the dead.

Demeter, her mother, searched far and wide for Persephone. When she could not find her, she refused to eat ambrosia or sip nectar anymore. She told the soil not to bear crops, and put both gods and men in dismay.

Zeus at last sent Hermes to Hades to ask for Persephone.

Hades consented to let her come to the outer world of light provided she would return. She had tasted food in Hades, he said, so she had to spend part of her time with him forever after. Demeter was joyful to have her daughter with her for even part of the time, so she let the crops grow again.

This myth was meant to explain why nature makes both darkness and daylight, both winter and summer. Darkness and winter stood for times when Persephone was in Hades; daylight and summer for times when she was back with her dear mother.

A boatman called Charon was said to take the souls of men across the River Styx (the "hateful river") to Hades. The Greek idea of Charon is believed to have been taken from an Egyptian myth.

Homer and His Poems

Among the writings which have been saved from the time of ancient Greece are the "poems of Homer." They were first written in Greek, then in Latin, and finally in the languages of modern Europe.

Of the life of Homer not much is known; but it seems likely that he lived about three thousand years ago—long before the Greeks were widely known in the world. Legend says that he was a harp-player who sang of heroes while he fingered the strings of his harp; and that he was blind. Whoever he may have been, it seems clear that Homer did not make up all the poems which go under his name. Other poets must have added to what he composed.

The chief poems credited to Homer are the "Iliad" and the "Odyssey." As far as we know, they were not written down at first, but were repeated by one person to another. A father might teach them to his son, while the son would do the same for his children. At

last, however, they were put in written form and the author was said to be "Homer."

The "Iliad"

The "Iliad" tells of an army of Greeks who laid siege to the city of Troy. The Greeks were supposed to be trying to take revenge upon a Trojan prince who had carried away the wife of the king of Sparta. If there ever was such a siege of Troy, the reason was far more likely the desire of Greeks to settle in the rich country of which Troy was the chief city.

One of the most touching parts of the "Iliad" tells how the Trojan hero, Hector, went out beyond the walls of the city and fought in

Hector's wife wept on his shoulder when she bade him farewell. The infant son looked on, little knowing that his father was about to die.

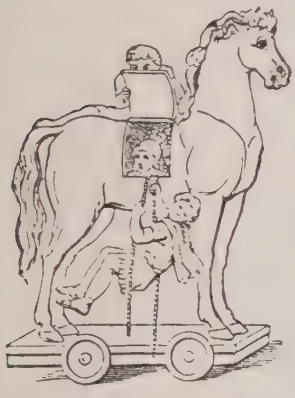
single combat with Achilles, the greatest Greek hero. Before he left home, that day, Hector's wife had bade him a tearful farewell. She feared for his life.

Achilles was full of rage because of the death in battle of one of his friends. When he saw Hector, he ran forward to meet him. The

Trojan hurled his spear, but it had no effect upon the Greek hero. Hector was slain, and his body was dragged around the walls of Troy behind a chariot.

In spite of the loss of their hero, the Trojans might have kept their city free had it not been for Odysseus. That clever Greek thought of a way to get into Troy by a trick. A wooden horse was built, and several soldiers were hidden inside. The Greeks then pretended that they had given up the siege, and sailed away in their ships.

The Trojans saw that the wooden horse had been left behind and took it inside the city as a trophy. That night they held a mighty feast, and there was much drinking of wine. Everyone slept heavily, and the men inside the horse were able to slip to the ground without being seen. They ran to the gates and opened them.



An ancient picture of the wooden horse, drawn to show how the Greeks could get in and out.

The Greek army had sailed only a short distance away and had returned after dark. When the gates were thrown open, soldiers rushed in. The drowsy Trojans were slain on every hand, and the city was burned.

The story of the wooden horse is no doubt a myth, but there was really a city of Troy. Men of science have found the spot where the city once stood. It was destroyed more than once, and city after city was built at the same spot. This can be told by the "layers" of ruins. Instead of clearing away the remains of one city, people would cover them up and build above. All told, there were nine cities. One was built by Romans and was known as "Ilium." From that comes the name of the poem of the Iliad.

The "Odyssey"

The "Odyssey" was named after Odysseus, the clever man who was supposed to have suggested the building of the wooden horse. He

sailed far and wide over the sea in his effort to get back home after the burning of Troy.

Odysseus, says the poem, had made an enemy of the god of the sea. That is why his ships were blown out of their course. Landing at a strange island, the sailors met with a one-eyed giant or "Cyclops." He might have killed them all if Odysseus had not found a way to escape from a cave where the Cyclops had placed him and some of his comrades.

Among the adventures of Odysseus was one in which he was tempted by mermaids while his ship was passing by a tiny islet. His sailors had to hold him to keep him from jumping overboard.

Later, Odysseus was ship-wrecked and cast upon the shore of another island. He was kindly treated by the people there, and might have married a princess; but he wanted to return to Ithaca, the island near Greece over which he had once ruled as king. It had been more than twenty years since he had left home to take part in the attack on Troy.

Penelope Waits

At Ithaca all this time, a loving wife was waiting for Odysseus to return. Her name was Penelope, and she had been married to Odysseus only a year before the Trojan war broke out. Time dragged

on—she longed for the end of the war and the return of her husband. At last Greek ships came in sight, and she joyfully expected her husband. But it was not to be.

"Your husband," she was told, "has not been seen since he sailed away from Troy."

Year after year dragged by, and still the king of the island did not return.

The nobles of Ithaca came to the queen and said:

"Your husband must be dead. Choose one of us to be your mate and rule over the kingdom."

"No," replied Penelope. "We must wait longer. Soon I shall begin work on the funeral robe for my husband's father. If Odysseus does not return before I get it done, I shall marry one of you."

The queen set to work making the robe; but each night she undid the work she had done during the daytime. The nobles saw that something was wrong. One night they waited and surprised her in

The nobles surprising Penelope.

the act of unraveling what she had woven. Their mood became ugly. They said that she must marry one of them at once.

While poor Penelope was wondering what she could do, a ragged man entered the courtyard of the palace. A dog rose to meet him. It was old and feeble, and after taking a last look at its master, it wagged its tail and died.

Odysseus (for this was he) stepped into the palace. No one knew him at first, but he finally proved that he was Ithaca's former king. His son, now a grown man, helped him kill the nobles. Once more, he ruled over the kingdom and lived happily with his faithful queen.

Odysseus is also known under the name of "Ulysses," as he was called by the ancient Romans. The stories about him must have been mainly fables, but perhaps there was a man of his name who met with many adventures on strange islands in the Mediterranean.

CHAPTER XVI

LIFE IN ATHENS

The greatest city in Greece was Athens. Had there been no Athens, most of what is worth while in Greek history would not have been.

Athens got its start more than three thousand years ago. The people who settled there wanted to be near the sea, but not right on the shore. Athens was about four and a half miles from the coast.

About half of the people in the city were slaves. They did the hard work of the city; but they could not vote or help to rule things.

Athens also contained some foreigners, mostly traders and merchants who had come from Asia Minor or Egypt. The foreigners were thought to be better than slaves, but not so good as the "freemen." The freemen were the people in Athens who controlled the city. There were a good many thousands of them.

How the Greek Theater Began

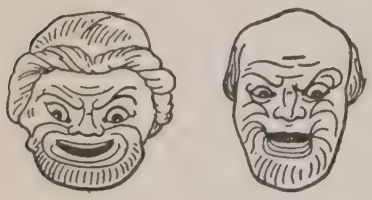
The Athenians prayed to a god of wine, whom they called Dionysus. Festivals were held in his honor. People would go to a place where an altar had been built for worship of the wine-god. Before the altar would come singers and dancers. By and by, it came to be the custom for some man to stand in front of the crowd and tell about the virtues of Dionysus. Later, two or three men appeared and spoke together so that everyone could hear.

When the Greeks produced serious plays, the chief actors wore masks like these.

At first, the crowd was in the habit of standing all this while, but

they became tired of that. Wooden seats were built in a half-circle around the speakers, and people sat in comfort while the actors spoke about Dionysus. Often an actor pretended to be the god himself.

From this beginning arose the Greek theater. The most noted one in the country was built at Athens, beside the great hill near the center of the city. It was called the Theater of Dionysus, and it would seat more than sixteen thousand persons. There was no roof but the sky.



Masks used for light or comic plays in Athens.

Tickets were required for anyone to come. Usually a charge was made for the tickets, but sometimes they were passed around free. The festivals in honor of the wine-god lasted several days. Theater plays began at dawn and lasted until dusk. For a long time, there were no more than three actors with speaking parts before the audience; but there were fifteen or twenty men in the chorus.

Actors wore masks such as those pictured. Women were not allowed to take any part in the plays, but on certain occasions they could watch.

Barbers and Beards

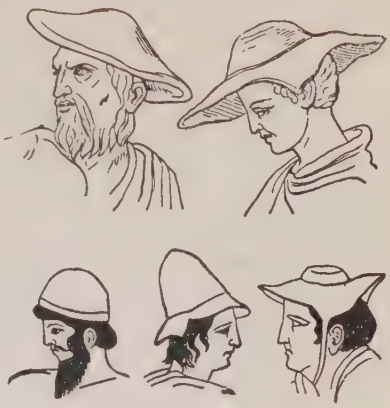
The barber shops of Athens were in private dwellings. Special doors led to the streets, and each shop was a kind of clubroom. People came there to talk things over or to exchange news. There were, of course, no newspapers, so people felt a great need of learning about events from one another. This was done when they met at the central market-place or at barber shops. News came largely from ships which landed at a seaport town near Athens.

The barbers did most of the things we might expect—sometimes they shaved a man, sometimes they trimmed his beard or cut his nails.

In certain cases, they even curled the hair! Many Greek men thought that curly hair would make them look more handsome.

Hair-cuts were part of the barber trade, but styles changed from time to time. Long hair was in fashion for a period, but later it was only the "dandies" who let their hair grow down to their shoulders.

Most men seem to have let their beards grow out—until a queer event happened. A general led a Greek army into battle against the Persians. The enemy fell into the habit of grasping the beards and dragging the Greeks to the ground. The general then ordered his soldiers to be shaved. After that, it came to be the custom in Athens for all men to be shaved. The barbers rejoiced.



The heads and hats of five Greek men. Styles in beards and "hair-dressing" can be observed.

Marriage in Olden Athens

Athenian girls were usually married when about fifteen years of age. The father and mother picked out the husband and the girl had to accept. Often she did not see the man until the day they were engaged.

Weddings most often took place in January. This month was called "Gamelion." It was chosen because it was the month of the goddess Hera, who was supposed to protect marriage.

The wedding was a great affair, held in the home of the bride's father. There were many guests, and they watched closely while a lamb or calf was being killed as a sacrifice to the gods. They knew that they would be able to feast on the flesh when the animal was roasted. Another part of the feast was a large flat wedding cake, made of crushed sesame seeds mixed with honey.

Late in the evening the mother would lead her daughter to the marriage cart. Bride and groom would then drive slowly off, while their friends walked on either side. Torches were held up to light the way, and songs of marriage were sung.

A Greek woman dabbing red paint upon her face, in an effort to make herself seem beautiful. The paint was put on with a small brush. Sometimes, in hot weather, the "color in the cheeks" began to run away.

The couple would go to the home prepared by the husband. Then came another feast, perhaps with much drinking. Late in the night the friends would depart and leave the "newly-weds" to themselves.

Greek men were usually about thirty years of age at the time of marriage. They went wherever they pleased about the city, but the poor wives had to stay home. They hardly ever stepped outside the door. It was thought a disgrace for a woman to be seen near the market-place. Athenian men gathered there every day to talk about politics and other things. Slaves usually did the shopping.

Little Children of Athens

Children of Athens played all sorts of games. The boys rolled hoops and played "catch" with balls. Girls had dolls made from painted clay or wax. Sometimes the dolls had arms and legs which would move. If a girl was in a wealthy household, she had no end of toy dishes and doll furniture.

Both boys and girls played tag, blind man's buff, and hide-and-seek. Swings and pet dogs were common possessions.

There was, however, a dark side to the way babies were treated in Athens. Some of them were placed at the mercy of the world when only a few days old.

A father who thought that his family was becoming too large might say to his wife:

"Expose that child!"

It was a terrible sentence. It meant that the infant would have to be put in a cradle or basket and placed in some public spot. Then it would die unless someone took it away.

If the child happened to be deformed, it was left to die. If it was healthy, a man was likely to come along and say:

"This is a good-looking baby. I'll take him home and bring him up. Then I'll sell him for a slave."

Girl babies as well as boys were often reared for slaves. Their relatives knew them no more. In later life, an older child might buy his own brother or sister for a slave—and never know it!

School Days in Athens

If their parents could afford to send them, boys went to school in Athens after reaching the age of seven. They were usually taught by three teachers. One teacher helped them learn to read and write. Another gave lessons in music and poetry. The third led them in gymnastics, especially wrestling, running and jumping.

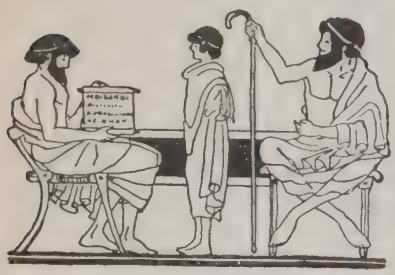
A school-boy writing with a "stylus," while another pupil stands waiting.

There were no public schools. The lads were sent to the houses of men who made a business of teaching. The fathers had to pay money to the teachers, and for that reason many boys could not attend. The classes were small, sometimes containing only three or four pupils. The schoolmaster was likely to be severe—he might beat his pupils so cruelly that large welts were raised on their backs. The parents did not interfere, because they thought that beatings were needed for the best results.

It was hard for pupils to learn to read. The letters were all bunched together. Only capital letters were used, and there were no punctuation marks.

Try to read the following English words:
THISISTOSHOWYOUHOWDIFFICULTITMUSTHAVE
BEENFORTHEATHENIANCHILDRENTOLEARNTOREAD
THEGREEKLANGUAGEHOWWOULDYOULIKETOHAVE
TOREADWORDSANDSENTENCESWITHOUTPERIODS
COMMASORQUESTIONMARKS

It is not very easy to read words all bunched together like that, even after you know how to read ordinary writing and printing. Suppose you had been told to read such crowded letters when you were just entering school! That was what the Greek boys were forced to do.



A lesson in poetry. The master holds a "roll-book" written on papyrus. The slave who takes the boy to and from school, is seated at the right.

To learn to write, they traced or copied letters written by the teachers on wax "tablets." The tablets were flat pieces of wood covered on one side with wax. The writing was done with a "stylus," an ancient type of pen. One end of the stylus was blunt. This end was the "eraser." It was used to smooth the wax when a mistake was made. Older boys sometimes wrote on papyrus with ink.

Girls did not go to school in ancient Athens. They were kept at home and taught the "household arts." If they ever learned to read and write, it was by the aid of their mothers or nurses. Most girls were taught to spin, weave, sew and embroider.

CHAPTER XVII

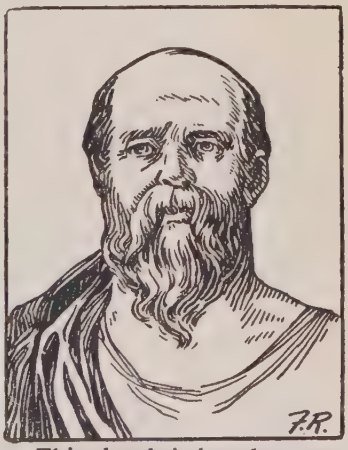
SOCRATES AND OTHER NOTED GREEKS

If you were in danger of being put to death, but could escape, what would you do?

That question had to be faced by a great Greek thinker in the city of Athens. He chose to stay and face the trial, which resulted in his death. The name of this man was Socrates, and he was one of the noblest men who ever lived.

Socrates was the son of a poor stone-cutter. When he grew to manhood, he did not follow his father's trade. Instead, he became a teacher—and what an unusual teacher he was!

Wearing shabby clothes, and barefooted, he strolled about the marketplace and stopped to talk with anyone who wished to listen. Sometimes, he even halted men who did not care to talk to him. Many were the times they flinched under his keen questions.



This sketch is based on part of a statue of Socrates.

We have before us what is supposed to be a likeness of this man. His face was strong and rugged. Most persons thought him homely; but he was loved.

Groups of Athenians (mostly the younger ones) gathered around him eagerly. *They* liked to hear what he had to say. What did it matter if he cast doubt on what everybody had believed? They wanted to know *the truth* and Socrates showed them the way. Most of his teaching was done through questions. He asked them about things, and they had to think hard to find good answers.

For many years it continued thus. Then, alas! some of the older citizens became alarmed and angry.

"This man," they said, "is teaching our sons to doubt what we have always believed. Down with him! Put him to death!"

The Thinker was tried before a jury of five hundred persons. A goodly number wanted him to go free, but there were more who said: "Let him die!"

Before this trial, Socrates had been urged to flee from Athens, but he had spurned the idea. In prison he awaited the day of death, talking calmly with his friends. Never did he speak a word of regret. He was glad to die for what he believed right. On the last day, he raised a cup of poison hemlock juice to his lips and drained it to the dregs.

Socrates died twenty-three hundred years ago, but he still lives in our minds and hearts.

Plays, Poets and the Gods

The coming of spring was celebrated in Greece by plays given in large open-air theaters. The theater at Athens seated more than fifteen thousand persons.

Serious plays are called "tragedies." Those which are written to amuse, are called "comedies."

In Athens, the tragedies were performed in the morning, beginning just as the sun was coming up. The comedies were played in the afternoon, and were kept going until it began to grow dark.

Contests were held to see which poet could write the best play. The people watched and listened as each new performance was put on. If they liked it, they would shout: "Again! Do it again!" If they thought that the play was poor, they would hoot. Sometimes they even threw fruit or vegetables at the actors.

One of the writers of serious plays was named Sophocles. If we spelled his name as it was pronounced, it would be "Sof-o-kles."

Before the day of that great poet, there were only three actors in

front of the audience at the same time. Sophocles said, "Let's have another actor." That made the play more interesting.

Besides the actors with speaking parts, there were groups of men who came out and sang. Usually their songs told part of the story of the play.

Sophocles did a good thing when he started to place four actors on the stage; but he was an old-fashioned man. He firmly believed in Zeus, Hera, Athena and the other gods and goddesses.

There was a rival poet named Euripides. He was a deeper thinker. In his plays he showed that he doubted whether there were any gods or goddesses. Older people shook their heads and sometimes became angry. Young men and women, however, liked his plays. They began to believe that the stories about Zeus and the rest were only fables after all.

Plato and Aristotle

One of the young men who listened to Socrates was Plato. He was an earnest pupil of the homely thinker, and everything his master said was full of interest to him.

After Socrates had swallowed the poison hemlock, Plato became the leader among those who liked the teachings of Socrates. He took the master's place and filled it in a splendid manner. To do his teaching, Plato often walked with pupils to a grove of trees some distance beyond the walls of Athens. There he spent many an hour speaking about the Good, the Beautiful and the True.

Plato wrote books about how the truth could be known, and how people should live. His most famous book is "The Republic." It gives Plato's ideas of the best way for a government to be run. The books of Plato contain much that Socrates is supposed to have said—though Plato probably "dressed up" the words.

Among the pupils of Plato was one who gave him a great deal of trouble. This was Aristotle, who had come to Athens from Macedonia, a country north of Greece.

Aristotle was the son of a doctor in the palace of the king of Macedonia. For seventeen years, he spent his time in or near the palace. Then his father allowed him to leave for Athens. At Athens it did not take the youth long to meet Plato and become one of his pupils. Full often he walked with the rest to the grove where they could speak amid the beauty of nature.

Plato liked his pupil Aristotle, and the pupil liked the master. Still there was trouble. Aristotle could not agree with all that he was taught. He thought that his master was too *general* about things. Plato said that Aristotle was "like a young colt which leaves its mother."

When Aristotle was about thirty-seven years old, he left Athens and spent twelve or thirteen years largely in travel. During that time he settled down for a few years at the court of King Philip of Macedonia. His work was to teach the young prince Alexander. Later, he returned to Athens and taught a group of young men—as Socrates and Plato had done before.

Aristotle was the most learned man of his time. He studied deeply into facts about animals, flowers and trees. His students helped him gather more and more facts, until he had a collection such as the world had never seen. When we read his writings, we are surprised at the wide range of his knowledge. He was one of the earliest "scientists."

Alexander "the Great"

Prince Alexander was thirteen when Aristotle came to teach him. He seems to have enjoyed Homer's poems best of all. Perhaps the tales of Troy set the youth's mind afire with the thought of winning glory when he became king.

Alexander was crowned after the death of his father. A half-brother and a cousin were murdered at the time, probably by order of the prince (who feared that they might want to rule in his place).

Soon after becoming king, Alexander spread his rule over most of Greece. The great city of Thebes was captured and burned. Then Alexander made ready with his army and marched to the east. In the army went some thousands of Greeks.

Persia was still the main power in Asia Minor. It ruled Babylon and other cities near the Tigris River. Persian armies went out to meet Alexander, but they were beaten. The young king found himself master wherever he went. He won control of Phœnicia and Palestine, then went down into Egypt. Some Egyptians were glad to see him come because they did not like to be under the power of Persia. In the north of Egypt, on the sea coast, Alexander caused a new city to be started. It was called Alexandria and later became large and important.

Alexander and India in His Day

After Alexander had laid Egypt under his power, he marched back to Persia, put his army into good shape, and set out for—India!

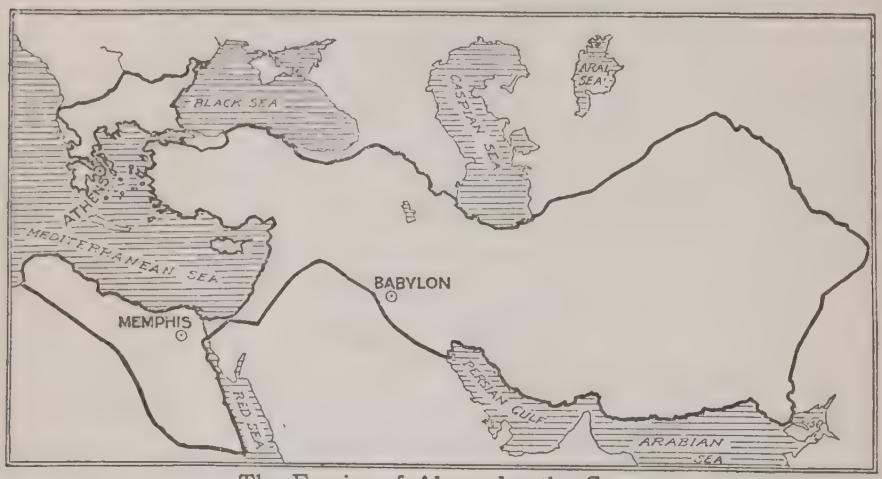
At that time, very little was known about India. It was a land of mystery to the people who lived in Europe. Alexander marched into the country, and got as far as the Indus River. The men of India could not fight so well as the invading army. They were beaten time and again.

India, however, seemed such a large country that Alexander did not dare to go in very far. He had his soldiers build a fort near the Indus and then returned to Persia. Many coins with Alexander's picture have been found in that region in late years.

The Indians of those days were not very good fighters, but they had proved themselves a great people. Fine roads had been built between the larger cities. There were hotels where travelers could get food, drink and lodging. People knew how to weave muslin and silk. If the sun were not so hot in India, the people might be almost white. They are related by race to the people of Europe.

Death of Alexander

Alexander and his men did quite a great deal of fighting on their way from India back to Persia. All the "travels" of Alexander, in fact, were over a bloody pathway. He won power and glory, at the price of blood and tears.



The Empire of Alexander the Great.

Reaching Persia, the general was soon at Babylon where he was looked upon as emperor of the country. He was planning to make a trip to the south, but before the day he intended to leave, he spent two nights and days in drunken revels. A fever came upon him, and he took to his bed. Ten days later, he was unable to speak. Soldiers tried to bid him good-by; he could see them, but could not answer their farewell. Death came. The general was then thirty-three. He is often spoken of as "Alexander the Great." He was indeed a clever leader in war, but who can say that he was truly great? Can blood make glory shine?

The Great City of Alexandria

After the death of Alexander, a general named Ptolemy put himself in power over Egypt, and was regarded as king. Many bright-minded

Greeks then sailed over to Egypt and settled down. Most of them made their homes near the mouth of the Nile, in the city of Alexandria.

A splendid school was started at Alexandria. It was, in fact, a university. There were several buildings, and students were taught sciences, literature and the art of medicine. At one time there were *fourteen thousand* students at the university. They were gathered not only from Egypt and Greece, but also from Macedonia, Palestine, Persia and even from India. In the university library were half a million books. The books were rolls of paper, with words written in ink, or slabs of clay or stone with the words cut in. It was the largest library of ancient times.

When high school students study geometry, they use a book based on studies made by a man named Euclid. He lived at Alexandria. There is a story which says that the king of Egypt one day came as a pupil. Soon the king grew tired of trying to work out the hard problems.

"Euclid!" he exclaimed. "This is too hard for me to fool with. Can't you show a *king* an easier way?"

"No," replied Euclid, "there is no *royal* road to learning geometry."

Most high school boys and girls will agree with Euclid.

Alexandria was the world's greatest center of sea commerce. Metal money was now widely used for trade. A lighthouse was built near the harbor of the city, to protect ships going in and out. This lighthouse was considered one of the "seven wonders of the world."

Measuring the Earth

Many Greeks thought that the earth must be "round like a ball." They noticed that the sails of ships leaving harbor could be seen longer than the lower parts of the boats. They also noticed that if a person made a long trip to the south (say to Egypt) certain stars would fade away in the north. These two facts seemed to mean that the earth had a round shape. Some Greeks went so far as to try to measure the size of the earth. In one of his books Aristotle wrote that the earth was believed to be four hundred thousand "stadia" around.

That meant about forty-six thousand miles, and was far too high a guess. At the city of Alexandria lived a man named Eratosthenes. He knew a great deal about geography, perhaps more than any other man of his time. The map will show you his ideas of the shapes of different lands. Of course he was wrong about many things; but his

This is how Eratosthes thought Europe, Asia, and Africa were shaped. You will see that he made many mistakes. The map is based on one made by Eratosthenes but the names are given in English letters.

beliefs are interesting, to say the least. Eratosthenes declared that the earth was round and that it must be about twenty-nine thousand miles in circumference. That was about four thousand miles out of the way.

The school and studies went on at Alexandria long after both Egypt and Greece came under the power of Rome. In the next chapter, we shall speak of India and its ancient gods and religion.

CHAPTER XVIII

ANCIENT INDIA'S GODS AND RELIGION

India takes up a good part of southern Asia. It has more than three hundred million people—about three times as many as the United States. Most of the people are very poor, having little to eat, living in small huts, and sleeping on the floor.

Some families in India are not poor. They live, in fact, in great luxury—with much feasting and splendor. These are the native rulers of India, the so-called "high caste" Indians. Members of the high castes have somewhat lighter skins than the others. Their forefathers seem to have come into India about four thousand years ago and to have conquered the natives.

Soon after the conquest of India by the lighter-skinned tribes, there grew up in India many stories about gods and goddesses. The early people of India had gods who were supposed to command thunder, lightning, fire and wind.

The chief god was called Indra. Sometimes he was spoken of as "the hammer god" because he was said to rule over the thunder. Indra, it was declared, used his hammer to make the stars, sun and earth.

The fire-god worshipped by the people of ancient India. He was supposed to have two faces and plenty of hands. In this picture he is riding on a rather mean-looking goat.

Twin to Indra was Agni, the fire god. He was supposed to have "given the air of life to men." He stood for the thing which makes man and bird and beast able to walk, fly, or spring—for the *spark* of life.

Changing Stories of Creation

The stories told in ancient India changed from time to time. In the first tales the "hammer god," Indra, was called the "chief of the gods." But later on Brahma was said to be "lord of all."

One of the favorite subjects of the story-tellers was "how the world happened to be started." Here is a tale, told in India several thousand years ago, in which Brahma was said to be the creator:

"At first the world did not exist. There was neither sky nor earth nor air. But the world *wanted to be*. Smoke came. It was hot and fire was started. Rays from the smoking fire came together as clouds and made the sea.

"Out of the sea the god Brahma arose. He looked around and saw that there was nothing to stand on. This made him weep. Part of his tears fell into the water and became the earth. Other tears he wiped to the side, and these became air. Still other tears he wiped upwards, and they were turned into sky."

The birth of Brahma from a lotus-blossom. The picture is based on an old story told in India.

To show how long Brahma had lived, it was said that four thousand million years were "only one day to him."

Other stories try to tell how Brahma was created himself. One of these says that he was made by the god Vishnu.

"Vishnu slept on a many-headed snake," says the tale. "The snake rested on a turtle. When the turtle moved, there was an earthquake. Out of the body of Vishnu grew a lotus plant, and from the blossom Brahma was born."

Manu, the Noah of India

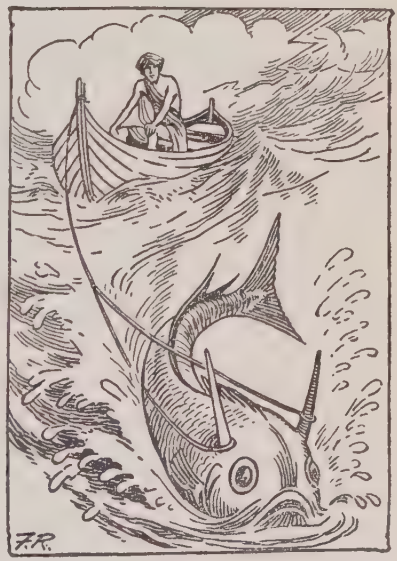
The part of India in which the tales of gods and creation seem first to have been told, is called the Punjab. Punjab means the "Land of Five Rivers."

The story of a "great flood" arose in almost every olden country where rivers overflowed their banks. Here is India's tale:

"Father Manu lived soon after the beginning of things. He was very good, and proved his love for the gods by standing on one leg in a forest for thousands of years. (How tired he must have become!) One day he was sitting near a stream. A small fish came to the surface and said:

" 'Please guard me from the big fish who want to eat me up.'

"Manu took the little fish in his hands and carried it home, where he placed it in a jar of water. It soon grew too large for the jar, and Manu placed it in a tank. In time, the tank was not large enough so Manu took the fish to the Ganges River. Even this proved too small, and the fish said: 'Please take me to the ocean. I am too big for this river.'



The fish saving "Father Manu," according to the Indian myth.

"While Manu was moving the fish to the ocean, it said to him:

" 'Noble protector, the end of the world is at hand. A terrible flood is going to sweep away everything. Build a large strong boat, and put in it seeds of all the plants. Get in the boat and look for me. I shall have horns.'

"Manu built as strong a boat as he could. The flood came and

covered everything—even the clouds. The boat floated, but it rocked so badly that there was reason to fear. Of a sudden the fish came to the surface. On its great head were horns which Manu lassoed with a rope he had on board. The fish then pulled the boat back and forth over the raging sea.

"Finally the water began to get lower. The top of a high mountain appeared. The fish pulled Manu to this peak and he stepped out of his boat.

"Then said the fish:

"'I am Brahma in the form of a fish. You shall have power to create gods and men over again. Do so.'

"Father Manu followed the command, and in time the earth was much the same as it had been before the great flood."

Gotama, "The Buddha"

For many hundreds of years, the people of India were in the habit of calling their great men "buddhas." If they had been speaking in English, they might have said "enlightened ones."

Then lived a man named Gotama (often spelled "Gautama"). It is said that he was the son of a king. He came to be called "*the* Buddha," or "*the* Enlightened One." That was because people thought him greatest of all.

Gotama, the Buddha, lived about five hundred years before Christ. While still a young man, he left his father's palace and went forth as a beggar. Years he spent in thinking about the meaning of this world of ours. He had a hard time trying to figure it out, but at last he thought he knew and went around preaching. His greatest message was that people should love one another.

Many wondrous stories are told about "miracles" performed by the Buddha. One says that he went to a marriage feast with a band of disciples. The master of the house was alarmed.

"How can I feed you all?" he asked.

"Fear not," said the Buddha, "I shall provide."

After those words were spoken, lo and behold, food came from what seemed nowhere. Everyone had enough to eat.

Another story says that a man was on his way to hear the Buddha speak. He came to a river and there was no boat. Then, "by the power of faith," he stepped upon the water and walked across!

I do not tell you those stories of miracles because I believe them. They were probably "made up" after the Buddha died. Still they have interest for us, because millions believe them to this day.

Gotama at the wedding feast, as imagined by a modern artist. (From "The Gospel of Buddha.")

Story of the Mustard Seed

A story about the Buddha which I like better does not tell of any miracle. It runs this way:

A woman came to Gotama, sorrowing over the death of her little son.

"Give me medicine," she cried, "to bring him back to life!"

Gotama was moved by her sorrow, but it was not his custom to try to restore the dead to life. He thought of a way which would make the mother realize that she should not ask him to do so.

"Go," he said, "to some house and get a handful of mustard seed for medicine. It must come from a house where no one has lost child, husband, parent or servant."

The woman went eagerly from home to home. Everywhere people were willing to give her the mustard seed; but when she told them

that death must not have touched the house, they shook their heads. There was no place into which death had not reached.

Then the mother realized that she had been selfish in her sorrow, and must do her best to bear what had happened.

For two score years and ten, Gotama continued his teaching. Then came the time for him to pass into Nirvana, "where there is only bliss and which is for perfect souls." (Other souls, say the Buddhists, must be "born again" and live other lives until they are perfect.)

Gotama was eighty years old at the time of death. He chose a beautiful grove in which to spend his last days. After he had told his disciples how to carry on his work, his spirit fled, no man knows whither.

CHAPTER XIX

ANCIENT CHINA AND JAPAN

China has a written history which goes back about three thousand years.

The earliest records tell of China being ruled by an emperor. Under him were many princes or nobles who ruled small parts of his empire.

Chinese writing, even to-day, contains many words which may be spoken of as picture-words. In the beginning, it seems clear that the Chinese did all their writing by making pictures.

For the Chinese to learn to write no doubt took a long time; but a story grew up that writing had been invented by a god named Pan-Ku. This god was also given credit for "making the world." He was said to have created earth and sky out of his own body.

The Great Wall

If you were to go to China to-day, you could find the remains of a mighty wall. It was built more than two thousand years ago, and was made to extend across valleys and over mountains. The wall was built to help the Chinese defend themselves from invaders of the north.

The Chinese wall was built chiefly of bricks, granite and hard-packed earth. It had an average thickness of twenty feet, and was made about as high as an ordinary two-story house. There were towers for soldiers at many points on the wall.

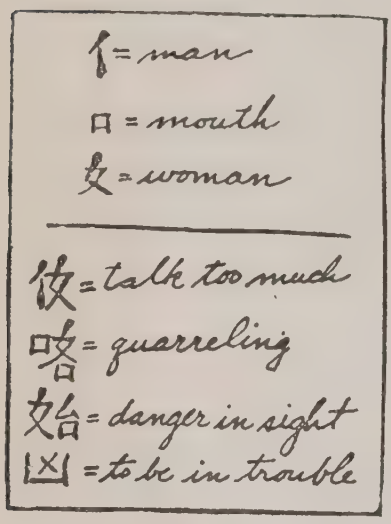
When the wall was built, it was more than fifteen hundred miles long. Much of it is now in ruins, but there are some hundred of miles which are still in fairly good condition.

Some Odd Chinese Words

Before us are some rather odd Chinese words of the present time. The signs for man, mouth and woman are shown in the upper part of the illustration. Let us see how the signs are put together to make other words.

A man and a woman placed next to each other mean "too much talk."

When a word for "quarreling" was invented, a woman and two mouths were drawn together. Perhaps that was because two angry Chinese women were believed to quarrel longer than children or men.



The "danger" word is made from "woman," "mouth," and the sign for "crooked."

The inventors of these Chinese words were unkind toward women, but they also made fun of men. For example, "to marry a husband" is written by the signs for woman, roof, and pig. The pig stands for the husband. This doubtless refers to the fact that the woman must cook meals for him.

Of course these are unusual words. Most Chinese words were made in a more serious way. The sign for "to be in trouble" is a cross in a box. I think that is a very good one, don't you? When in trouble, a man is likely to feel as if he were trapped in a box.

The "Old Thinker" of China

One of the most interesting figures in ancient Chinese history is Lao Tze. He started a religion which is now believed in by many millions of persons in Asia.

During his lifetime, this man was called Li, which meant "plum tree" in Chinese. He was later called Lao Tze because people wanted their hero to have a name which told something about him.

The name "Lao Tze" means two things—"Old Thinker" and "Aged Boy."

Both these meanings had something to do with the Chinese leader. For one thing, he was a great thinker during his old age. "Aged boy" was also a good name because after his death a story grew up that he was seventy years old when he was born!

Some of the sayings of Lao Tze have interesting thoughts behind them. For instance:

"The crow does not become black by being painted."

By this the Chinese thinker is believed to have meant that the outside things do not count so much as inside things. If a bad man puts on fine clothes, it does not make him worth while.

A Chinese drawing of the "Aged Boy" or "Old Thinker" riding out of China on his ox.

Another saying of Lao Tze is:

"Even if someone hurts you, return kindness to him."

The reason given for this was: "Evil persons can be made good through kindness."

The religion started by Lao Tze is called Taoism.

The death of the "Old Thinker" is full of mystery. A Chinese story says that he rode toward the west on an ox. The "keeper of the gate at the edge of China" was warned in a dream that Lao Tze was coming, and obtained from him a record of all his sayings. Then ox and rider went out through the gate, "never to return."

Buddhists and the Soul

After the death of the Buddha, missionaries spread his teachings in all directions. Some of them went to different parts of India. Others crossed the great mountains of the north and entered China.

In China, at that time, many persons believed in the teachings of the "Old Thinker." The disciples of the Buddha, however, were so fervent about their teacher that a great many Chinese began to believe in him.

A large part of the Chinese are now Buddhists. In fact, there are more Buddhists in China than in India, where the religion started.

Perhaps you are wondering what were some of the things the Buddha taught about the soul and the after-life.

One of his teachings was that a person had more than one life. Every person, Buddhists say, has a spirit or soul. This soul must spend time in earthly life until it becomes perfect. When a person dies, he usually has "guilt" on his soul. That means that he must be born again.

A picture in a Buddhist "catechism" has a row of views to show how a person may increase the guilt on his soul.

The first picture (at the right) shows a baby soul, with only a little guilt. As the baby grows up, he becomes more and more wicked. This means increasing guilt on his soul. When he dies, his soul is

almost black. A black soul, it is declared, means that the person will have a very hard time in his next life on earth.

The Buddhists believe that souls without guilt have bliss forever. It is declared that such souls go into Nirvana, a kind of heaven. In Nirvana, there is no worry or pain or suffering of any sort.

Of course all the Buddhists do not believe exactly alike. It is the same with them as with Christians. They differ about a great many points.

In China it is the custom of a large number of Buddhists to say the name of the Buddha over and over. They believe that this will keep away evil, and will help them gain Nirvana.

Some of the Chinese have a custom of making small circles on sacred pictures. When they have said the name of the Buddha a hundred times, they fill in one of the circles with red or blue or green ink. After the circles are filled on one picture, the same thing is done to another picture. As death draws near, the person asks someone to burn all of his holy pictures to help his soul pass to heaven.

One of the Buddhist branches in China is called the Pure Land sect. Members believe that whenever the Buddha gains a believer, a new lotus appears in a sacred lake in the Pure Land.

After death, it is said, souls go to this lake and live in the lotus blossoms. If they are perfect souls, they have the joy of gazing at the Buddha. If there is guilt on a soul, the lotus is closed and the soul cannot see the Holy One.

If the person has been very bad, the lotus is closed for thousands of years; but if the guilt is slight, the lotus will open within a short time.

A Japanese Sun Myth

Japan is a country made up of hundreds of small islands. Japanese history does not go so far back as the history of India or China. It is believed that Japan was settled by people coming in boats from China.

The first people of Japan used tools of stone, but after some

thousands of years they learned to make things from metal.

It seems that people in almost every olden land wanted to claim "the first god" or "the first man." It was so with the Chinese, the Greeks, the people of India, and the people of the Land of Two Rivers.

The Japanese said that the first god was Izanagi, and that he dwelt over the waters. One day (the story says) he hurled his spear into the sea. The drops of sand which stuck to the spear-head fell and made the first island of Japan.

One of the children of Izanagi was the sun goddess. She was of great beauty and splendor, and lighted all around her. Happy was her heart—except for one thing, the mischief of her brother, the god of night.

The god of night had all his life been mean and thoughtless. While a baby, he had cried most of the time; as a lad he had been ever ready to play cruel tricks. This was why his father had made him ruler of the darkness.

The sun goddess sees her own image.

One day this mischievous god frightened his sister so badly that she ran and hid herself in a cave. When that happened, all living beings were unhappy. The light of day had passed. Gloom spread over the world.

The powerful gods called together the lesser gods in front of the cave. They begged the sun goddess to come out, but she would not heed. She still quivered in fear of the god of night.

Then one of the gods began to dance, with many funny jumps and twists. A wee bit of sunlight came from the cave. It fell on the dancer and everybody saw his queer capers. They roared with laughter.

The sun goddess wondered what the laughing was about, and tiptoed toward the mouth of the cave.

A clever god caught sight of her.

"Oh, look!" he cried. "There's a goddess out here who is more beautiful than you!"

Of course the sun goddess was jealous—and curious. She came forward to see if it were really true. Someone held a large mirror in front of her. For a moment she gazed in wonder at her own beauty. While she thus forgot herself, she was seized and carried to a palace in the sky.

The sun had been won back!

The ancient Japanese doubtless told this tale to explain why there was day and night. The sunset may have seemed to them like the sun going into a cave.

CHAPTER XX

ROME IN EARLY TIMES

Leaving the Far East, let us travel back to the Mediterranean and see what was happening. In Italy, the city of Rome held the center of the stage.

Rome is one of the earth's oldest cities. It was founded at about the time the Buddha lived in India.

While the olden Greeks were doing their great deeds, the Romans were also active, but in a different way. The great thing about the Greeks was their brightness of mind and their love of beauty. The Romans, on the other hand, were warriors—born fighters. What they wanted was to gain power, and they did. Their heavy hand fell upon nation after nation, until they ruled almost all the land around the Mediterranean Sea.

Romans used to tell their children stories about how Rome was started. They would speak of two babies named Romulus and Remus who were brought up by a wolf—a silly tale, indeed. The stories went on to say that Romulus killed his brother while the walls of Rome were being built.

Such tales have a certain interest, but we must try to get an idea of the real history of Rome. The city now stands on seven hills, but in the beginning people lived on only one hill, the highest of the seven.

Some time afterwards, other persons began to dwell on a nearby hill. There were disputes between the people of the two hills, and sometimes fights. By and by they decided to quit fighting and join together.

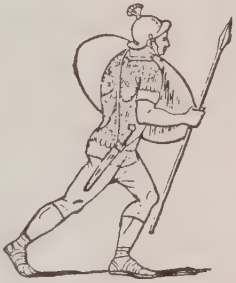
The space between the two hills was made sacred to a god called Janus. This god, the Romans said, had two faces. He was supposed to guard over both hills. Citizens often met in the region set apart for Janus. Part of it later became the famous Roman Forum.

People living on a third hill were soon added to the city. The Roman word for one-third was "tribus." Our word "tribe" comes from that.

Soldiers of Rome

The city of Rome paid a great deal of attention to war from the very earliest days. Soldiers were formed into an army, and the army fought with other cities.

When a city was beaten, it was looted. That means all the things worth while were carried off—gold and silver, precious stones, food and clothing of the better sort.



A Roman foot-soldier with shield and spear. Note the sandals and the short sword.

Even *people* were carried out of the city. By this time it had been discovered that it was better to let prisoners live than to kill them. If a man was killed, he was of no use; but if he was allowed to live, he could be used as a slave. The soldiers carried women and children, as well as men, into slavery. That was one of the main ways household servants were obtained for the richer families.

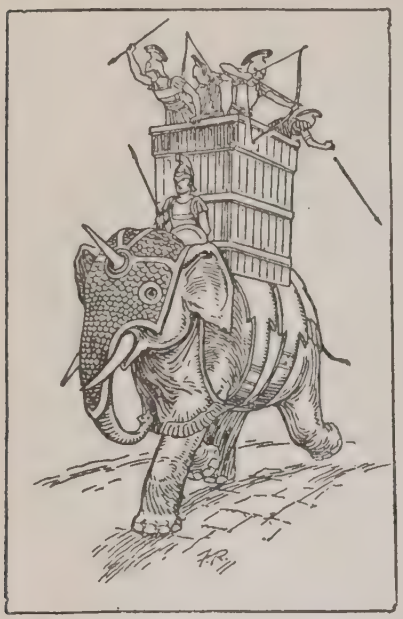
A cavalryman in a Roman army. In the long marches from country to country, men on horseback had a much easier time than those a-foot.

When a general won an important victory, he was allowed to bring his army to Rome for a grand parade. Such a parade was called a "triumph." Prisoners marched in chains past the people who lined the sides of the streets. Treasures taken from captured cities were loaded on wagons and passed with the parade.

The general rode in a chariot drawn by four horses and sat on an ivory throne. He wore a purple robe, and about his wrists were bracelets. His face was painted red! That color was often put on the faces of Roman gods.

Elephants in War

Some of the hardest fights the Romans had were with Greeks who had settled in southern Italy and on the island of Sicily. At one time there was war with a Greek city called Tarentum.



A war elephant with archers and spear-throwers above.

The Greek general was a skillful leader, and surprised the enemy by bringing elephants into the fight. Never before had the Romans fought against elephants. They were seized with panic and fled.

In a later battle the Romans thought that they were prepared to meet the huge animals. They had fastened poles to many chariots, and on the ends of the poles were bunches of flax dipped in pitch. The idea was to set fire to the flax, and pitch so that a foul smell would cause the elephants to stampede. Unluckily for these plans, the Greeks had archers on the backs of the elephants. The chariot drivers were shot before they could do harm.

Two years later, the Romans fought against the same foes. This time they used a better plan to take care of the elephants. The metal tips of their arrows were heated, and a storm of such arrows drove the big beasts back. The Greeks suffered defeat. Those who were left alive in Italy became subject to Rome.

Rome Becomes Tired of Kings

The kings of earliest Rome seldom, if ever, received their power from fathers who had been kings before them. The usual thing was

for each king to be chosen by vote. The voting was done by the oldest men of the richer families.

The king held the throne as long as he lived. He could have a person whipped or killed, if he wanted to do so. Some of his servants marched near him, carrying bundles of sticks. Among the sticks was an ax. The sticks were meant to show the king's power to have a citizen whipped. The ax showed his power to put people to death.

The tribes which settled in Rome and the country around, were called "Latins." They spoke the Latin language, which is still widely studied in schools. One Latin word was *senex*. It means "old man"; a number of old men became the Roman "senate."

The senate had very little power while the kings were ruling. The aged men came together and listened to what the king had to say. If he asked them a question, they would answer; otherwise they were not supposed to speak.

By and by, Romans became tired of having one man act as ruler all his life. They banded together and made the king leave the city. In the years which followed, Rome was ruled by two consuls and the senate. The consuls usually held office for only a year.

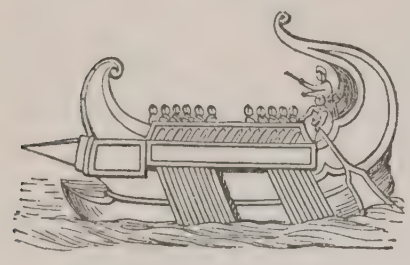
Pirates in Roman Days

During a time when Rome felt herself to be mistress of the whole world, there was "a thorn in her flesh." Pirates rowed and sailed far and wide over the Mediterranean Sea. Whenever they had a good chance, they swooped into some harbor, captured men and treasure, and escaped as quickly as they had come. The captured men were usually sold as slaves on an island where there was a slave market.

The pirate ships were often fitted up in grand style. The sterns were gilded so as to look like gold; the oars looked like silver; and purple carpets covered the decks. Rich banquets were spread on board. Musicians played during the feasting.

The pirates sometimes made much sport when they captured a Roman. They would pretend to be impressed because they had such

a prisoner. Falling on their knees, they begged pardon for their mistake in seizing him. After this mockery, they were likely to show him a ladder which hung down to the sea.



A pirate-vessel, as pictured by an artist of early Roman times. Note the broad oar used as a rudder.

"Go down this ladder," they would say. "Return to your home in peace."

If the Roman refused, he was pushed into the water.

There were many hundreds of pirate vessels. From time to time, the Romans sent fleets against them. A general named Pompey once cleared them from the sea, but in time some of them came back and pestered people in seaport towns.

Signs and Sacrifices

The Romans believed in signs.

When they wanted to know whether to do this thing or that, they tried to find out "the signs." Some persons looked at birds, flying overhead. Others cut up animals, to see what "signs" were inside.

Perhaps most interesting of all was the custom of keeping chickens and calling them sacred. If a person wanted to know whether a plan would succeed, he might try to feed the chickens. If they ate heartily, it was a good sign. If they refused to eat, or ate very slowly, the plan was probably given up. No doubt the chickens were stuffed so much with food that they found it hard to eat.

A Roman admiral once tried this test and the chickens would not eat. The admiral became so angry that he picked them up and threw them into the sea. Most Romans, however, were afraid to do such a thing.

When a Roman died, food and drink were placed beside his body

in the tomb. Animals were sacrificed, and milk or wine was thrown on the ground. This was repeated every year. If the relatives forgot, the soul was supposed to become evil and to bring bad luck.

Animals were sacrificed in honor of the gods, as well as for the spirits of men. Pigs, oxen and sheep were the creatures most often killed. Prayers were said by those looking on. The bones and fat were placed on an altar and burned.

"Borrowing" Greek Gods

Like the ancient Greeks, many Romans used trees as places of worship. This was done chiefly in country districts, where there were no temples (or churches).

The Romans did not do much of their own thinking when they formed their religion. They "borrowed" most of their gods from the Greeks. Zeus was the chief Greek god; the Romans took him as their chief god, too, changing his name a little. They called him "Zeus the Father." The way they spoke that was "Zeus Pater." In time they made one word out of Zeus Pater—they said "Zeuspater" or "Jupater." Now we spell it "Jupiter."

The Romans spoke of the wife of Zeus as "Juno" instead of Hera. The messenger god, Hermes, became Mercury.

A Temple for All the Gods

Temples were special homes for the gods. The Romans built temples and prayed to the gods because they wanted to have the gods help them.

Most noted of the Roman temples was the Pantheon. Its name means "Home of All the Gods." It was indeed a place of splendor. The roof was a great dome, which sparkled with tiles of gilded bronze. This dome was almost one hundred and fifty feet wide. At the top was a large hole, meant to light the inside. It also let the rain fall in. The wind did not get into this hole and the drops fell straight down. They made a circular marking on the floor.

Some of the walls of the Pantheon were twenty feet thick. Below

the dome were pillars of yellow marble. All around the inside of the walls were niches for statues of gods. The Romans let people of almost any religion put statues of their gods inside.

This grand temple was built about two thousand years ago. Twice it caught fire, but in each case a Roman emperor had it fixed up again. If you go to Rome, you will find it still standing. The building is not so bright as it was in Roman times, but you will get a good idea of how it looked in its splendor long ago.

Washing Away Sins with Blood

People sometimes do things which they believe are not right. Then they are likely to have troubled minds. They worry over what they have done, wishing that they had acted in a different way. They want to do something to make up for the evil they have caused. The Romans were worried about their sins. In an attempt to make up for the wrongs they had done, they offered animal sacrifices to the gods. That means they killed beasts and placed part of the flesh upon altars to be burned. They hoped that the blood would wash away the stains on their souls.

A scene at a sacrifice.

Every five years, farmers were in the habit of killing three animals at a time—a bull, a ram and a hog. A picture of such a sacrifice is shown. At the right, you see an altar with fire burning. The priest before the altar has his robe or "toga" over his head, making a kind of hood. To the left are three helpers, each wearing a garland. One holds an ax to be used for killing the animals.

Sacrifices of this kind were usually made in honor of Mars, the god of war, or Jupiter, king of the gods.

Sometimes altars were placed on the steps of temples, and fires were lighted on top. People brought offerings to the temple to be placed on the fire. The flames could often be seen by persons praying inside.

CHAPTER XXI

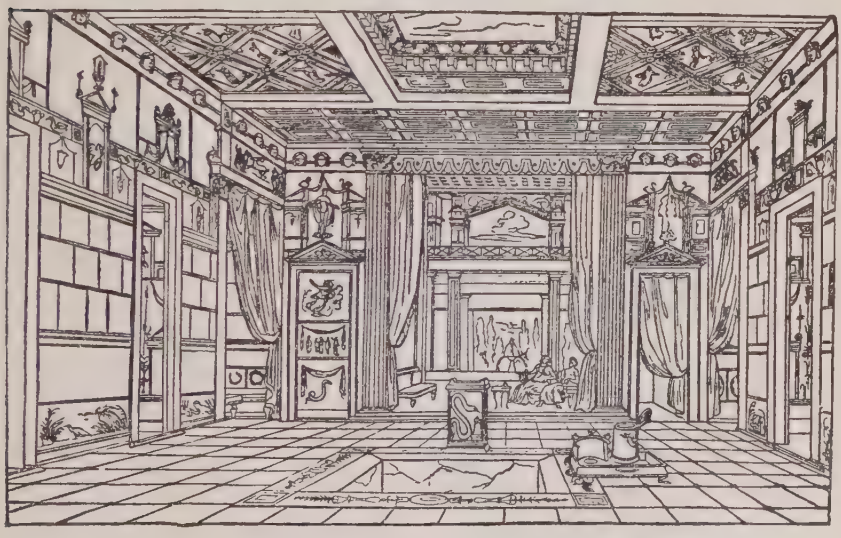
CUSTOMS OF THE ROMANS

Roman "Bath Palaces"

Rome and other cities of Italy had fine public places where people could go to take hot or cold baths.

Children were given favor, for they were allowed to enter the "bath palaces" free of charge. They must have had great fun, jumping in the tanks of water and swimming or splashing about.

The older folks, however, did not have to pay very much. The men paid less than a cent apiece in our money, and the women about two cents.



An inside view of a Roman "bath palace."

Sometimes a man who wanted to get, or keep, a public office would pay the expenses of grown-ups at the baths for several weeks or months.

At one time there were one hundred and seventy public baths in Rome. Four hundred years later the number had grown to almost a thousand. Some of the bathing places were of huge size, containing scores of rooms. The ceilings were held up by fine pillars of marble or granite. Colored stones were used to make designs on the floors. Paintings on the walls and statues in the halls helped make the Romans feel that they were indeed in a kind of palace.

People seldom went to the baths just to get clean. They usually wanted to talk to other persons who gathered there, or to lounge around on the easy couches, or to read in the library room from books written by hand.

Roman Calendars

A Roman calendar, with "star signs" above the name of each month.

Some of the calendars used by the Romans have come down to us, and one of these is pictured. It is a square block of stone, with three months on each of the four sides. Above the name of the month is the "star sign" for the month.

You can read MENSIS IANVAR. Mensis meant "month," while Ianvar stood for Janus, the Roman god who was said to have two faces. His month was the first of the year, January. One face of Janus, it was said, looked back on the old year; the other looked forward toward the new.

Another month is headed "Mensis Martius." That is March, the month of Mars, the Roman war god. June was named after Juno, the Roman goddess who was supposed to be the wife of Jupiter, chief god of all.

Under the name of each month on the calendar, were the names of feast days during the month, as well as other information.

The Roman Circus

You will perhaps be surprised to hear that we owe most of the idea of a circus to the ancient Romans.

The circus grounds of Rome were in a valley between two of the city's famous hills. All around a large central space were rows of seats. Those near the front were built of stone. The rest of the seats were of wood. They were put up in a flimsy manner, and sometimes broke under the weight of the audience, leading to loss of life.

A chariot race at a Roman circus.

Circuses were free. The money to run them was often given by generals who had fought in foreign lands and taken wealth away from people who were beaten. At one time, the number of seats around the chief circus ground of Rome was one hundred and eighty-five thousand!

The chariot races were the most popular events on the program.

Driving three or four horses at a time, men in chariots fairly flew around the race course. Each chariot carried a special color: white, red, green or blue. People cheered for a favorite color. In later days of the circus, the Whites and Reds dropped out; and the races were between the Greens and Blues.

The chariots were owned by rich men; but they hired others to do the driving; or else sent their slaves to the job. In certain cases, slaves were freed because they did well on the race course.

The Forum of Rome

Many cities in Italy had open spaces called "forums," but *the* forum was at Rome.

The Roman Forum was in a hollow between hills, and was paved with stone. All around it were great buildings, mainly temples. The chief temple was the one built in honor of Jupiter. There was another temple in honor of Jupiter's wife, Juno. It was called Juno Moneta and was attached to a building where money was made. Our word "money" comes from the Roman word "Moneta." There was a prison, as well as a mint, among the temples.

Public speeches were being made in the Forum much of the time. Thousands of people crowded into the place, and cheered or hooted the speaker. Roman law-makers often came to argue some point before the Forum crowd.

A scene at the Roman Forum. An emperor is talking to the crowd.

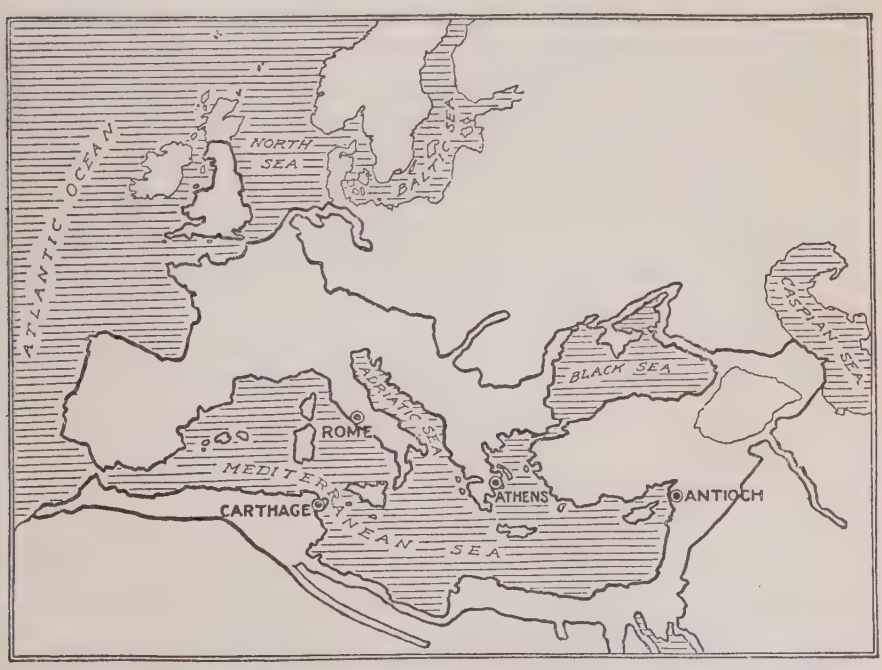
All that remains of the Forum now is part of the open space, and the ruins of some of the buildings which stood around it. Christian churches have been built on several spots where temples once stood.

Emperors Rule Rome

The Roman republic lasted several hundred years. It was a time when a great deal was happening. Roman armies marched through country after country, killing and burning. Greece put up one of the hardest fights of all, but some Greek cities quarreled among themselves, which helped Rome.

Julius Cæsar is the most famous Roman general. He led armies against the "barbarians" of northern France and against nations in the east. Cæsar was killed because he was suspected of wanting to become emperor of Rome.

The death of Cæsar, however, did not keep the republic from coming to an end. The first emperor was called Augustus Cæsar. (Cæsar was pronounced like "kaiser.")



The Roman Empire.

After Augustus, another emperor ruled, then another and another. The nation was never a republic again.

It was the habit of emperors to have their "images" put on coins. The likeness was usually poor, but there was supposed to be honor in it anyway.

Schools and Pupils

There were some differences between the education of Greek and and Roman children. Greek girls had to stay home all the time. Unless they were taught to read by parents or servants, they never learned. In Rome the girls were allowed to start to school when they were seven years old. They usually remained there for only a few years, however.

Roman boys started to school at the same age, but remained much longer. They attended private schools and their fathers paid the teachers. The poorer children, of course, went without schooling.

In Greek schools, pupils were taught to recite poetry and to play musical instruments. The Romans thought that such teaching was rather useless. Their children were taught to read and write, and to do small problems in arithmetic. The art of music was neglected.

When writing, Roman school pupils generally used a small rod with a point at one end. They cut words with this point on wax-covered wood. Like Greek schoolboys, they erased words by rubbing the blunt end of the rod over them.

Older persons in Rome wrote with ink on parchment.

Children at Play

One of the games played by boys during Roman times, is pictured. The sketch is copied from a painting found at Pompeii, a city near the sea which rich families from Rome used to visit quite often.

Notice that two of the boys are not wearing any clothes and the

others are lightly clad. Southern Italy has a very warm climate, and small children were glad to be able to keep cool.

Small children at play.

The boy at the center appears to be "it." He holds a rope tied to a spike in the floor. We have no writing to tell about this game, but we can guess that the boy who is "it" is getting ready to lunge out and touch one of the other boys. Until he does so, he probably cannot let go of the rope and must let the other boys strike him with rods and rope-ends.

Games of that kind were common among boys of olden times.

Little girls usually played in a manner which was not so rough. They amused themselves by picking flowers, gathering colored stones and pretty shells, or tossing balls back and forth. Dolls were in common use. The richer girls had dolls of ivory, the poorer had to be content with those made of hard clay. Many of the dolls possessed arms and legs which could be moved.

An ivory doll which was found in the grave of a little Roman girl.

Fairy tales were popular among children. Both boys and girls were often to be seen sitting almost breathless at the feet of their nurses, listening to stories. Roman fairy tales were a great deal like those of the present time. They had much to say of kings and queens, beautiful princesses who were won by handsome princes, and ugly sisters who tried to keep their pretty sister from being seen by suitors.

Cock-Fights

Boys in Roman times appear to have enjoyed the "sport" of cock-fighting. One of our pictures shows two boys who have been watching a cock-fight. The loser is carrying away his "bird," which is limp—perhaps dead. The young master is rubbing his eyes. The other boy has a champion almost as big as himself. From the picture you would think he could get on its back and take a ride. Far to the right is a bust of a god. On the altar are wreaths and palm branches such as were given to the victors.

The loser and the winner.

Our other picture also shows the end of a cock-fight. One bird is bleeding from the pecks of its opponent. The master at the right is sad because his bird has lost. The other master holds a wreath aloft. Two slave boys are nearby. One bears a palm branch in his hands; the other is hiding his face in his hands. You can guess which boy belongs to which master.

The end of a cock-fight.

Roman Plays and Actors

For most Romans, plays at theaters were too "tame"; they wanted to see races at the circus or other exciting events. There were some thousands of persons, however, in Rome and other cities of Italy, who liked to watch plays.

Most of the theaters of Roman times were built like those of the Greeks. They were in the open air, usually at the side of a hill. The

audience sometimes sat on the grass. In other cases, seats of wood or stone were provided. One theater had stone seats for twenty thousand persons.

A scene at a theater during Roman times.

Our picture shows a scene from a Roman play. At either side an official is seated. At the center are the persons in the play. The Romans allowed women to appear upon the stage. This was a change from the Greek custom which made men take women's parts.

Notice the masks worn by the two actors who are speaking. That was after the Greek idea. The masks had metal mouthpieces which made the voice sound louder. They were needed because it was hard to hear in the open theaters.

Sometimes the crowd at a theater heard something exciting going on somewhere else, and left the actors to finish the play without any audience.

When Romans Dined

Three-meals-a-day was the custom in Roman times, the same as nowadays.

The first meal had a long name ("ientaculum") which we need not worry about. It was the same as our breakfast, being eaten a short while after a person arose. Usually it was very simple—just bread dipped in wine or sprinkled with salt. Sometimes raisins or olives were eaten with the bread.

Workingmen led a rushing life. Often they were to be seen eating their breakfast of dry bread on the way to work. School children sometimes bought pancakes on their way to or from school.

The second meal was the chief one in the country regions, but in the cities it was only a cold luncheon. It was served a little after eleven o'clock in the morning. When it was over, people who had time, sat down, or slept for an hour or so. The third meal in the cities was "the dinner." Vegetables, fish, eggs, meat and fruits were served.

The Romans took on a Greek custom of lying down at their meals. The Latin name for dining-room meant "three-couch place." That was because there were usually three couches around the table.

At the dinner, the rich Roman was always to be seen lying on his side, facing the table, while he ate or drank wine. The wine was by custom mixed with water. Drinking-horns shaped something like an ice-cream cone were often used. There was a little hole at the small end; when this was uncorked, the wine dropped into the man's mouth.

Women were sometimes allowed to lie down while eating, but children were supposed always to "sit up at table."

In wealthy households two or three or four dining-rooms were to be found. There was usually one in the open air, for use during warm weather. Such dining-rooms were sometimes covered with lattice-work and vines.

CHAPTER XXII

JESUS AND THE CHRISTIAN CHURCH

The Romans were in the habit of counting the number of persons in Italy from time to time. They also took a census of the people in foreign countries which they ruled, in order to lay taxes.

One country the Romans ruled was Palestine. It was small, and few Romans paid attention to what went on there; but the emperor did want to get tax money. More than nineteen hundred years ago, a census was begun in Palestine. Hundreds of families journeyed towards their native cities to give their names to the census-takers.

One of those families was made up of a poor carpenter named Joseph and his wife, Mary. While they were staying overnight at Bethlehem, a small town near Jerusalem, a child was born to them. It was given the name of Joshua. The Greek form of that name is "Jesus."

Very little is known of the youth of Jesus. No one thought it important to record the life of a carpenter's son; but, as the event proved, Jesus was to have a greater influence on history than any Roman emperor.

There were no newspapers then, and even when Jesus began to preach there was little stir in the country. He took the side of the common people, and said many things against the traders and priests who made life hard for almost everyone.

The Sermon on the Mount

One day Jesus and a crowd of people climbed toward the top of a small mountain, and Jesus gave his famous Sermon on the Mount. No record of that sermon was made at the time, so far as we know. The accounts in the Bible were not written until long after Jesus was dead.

Fifty years or more after Jesus died, someone wrote down what he thought Jesus had said on the mountain. The writing was done in Greek. Later, it was put into Latin and the languages of Europe. This is the substance of a part of the Sermon on the Mount, as given in the Gospel of St. Matthew:

"Blessed are the poor in spirit; for theirs is the kingdom of heaven. Blessed are the meek; for they shall inherit the earth. Blessed are the merciful; for they shall obtain mercy. Blessed are the peace-makers. . . .

"You have heard, 'Thou shalt love thy neighbor, and hate thine enemy'; but I say, 'Love your enemies.'

"When you give alms, do not sound a trumpet before you, as the hypocrites do. Let not your left hand know what your right hand does. Let your alms be given in secret.

"Be not anxious about what you shall eat or drink, or what you shall put on. Is not the life more than the food? Is not the body more than the clothing?"

No picture of Jesus exists which was made while he was alive. Artists have made his face in many different ways. This sketch of Jesus is from a picture in the Brera Gallery at Milan, Italy. The earliest known pictures showed the face without a beard.

The sermon, as given in the Bible, was much longer than that. Perhaps some day you will want to look it up and read it in full. In the Bible you will find words about miracles said to have been performed by Jesus. Some people think that these were only stories invented after his death. Others believe that they really happened.

Laying the question of miracles aside, we know that Jesus did a

great deal of preaching. With him were twelve men who later came to be called "apostles." Besides the apostles, it seems that there were a hundred or more disciples who followed Jesus from place to place a great deal of the time.

Perhaps you wonder why things were not written down about Jesus while he was alive. The answer seems to be two-fold. In the first place, the followers of Jesus were chiefly of the poorer classes. They were not greatly practiced in writing, and it was enough for them to tell others what they had heard him say. In the second place, the followers believed that the "end of the world" was only a few years away and that no written records were needful in the meantime.

Jesus is "Punished"

From time to time, Jesus visited Jerusalem, the chief city of Palestine. Jerusalem was a place where people of many races met to trade. They used different kinds of money. Certain men made a business of changing one kind of money for another. Of course these men took profit for themselves when they did the changing. Some of the money-changers did work for the priests who bought animals for the sacrifices.

Jesus at one time entered a great temple at Jerusalem, and saw money-changers at work inside. He felt that the temple should not be used for such a purpose, and is said to have driven the men out with a whip.

The rich men of Palestine, the traders and the priests, were angered by the preaching of this person who dared to stand up for the poor and the lowly. They caused his arrest and went before the Roman ruler to demand death as a punishment.

The name of the governor of Palestine was Pontius Pilate. He questioned Jesus, and was satisfied with the answers he received; but not so the mob. Shouts went up:

"Put this man on a cross!"

"Punish him for claiming to be from heaven!"

Pontius Pilate let the mob have its way. Jesus was taken to the top of a hill and nailed to a cross, which was a common method of putting persons to death in those days.

Thus died a gentle leader of men, whose only "crime" had been to try to bring joy and comfort to the human heart.

Christians Win Rome

After the death of Jesus, many persons who had believed began to doubt. They said that if Jesus had really been "the Son of God," he would not have died. Then came a group of apostles among them, saying:

"Jesus has risen from the dead."

Many persons believed what they said, and great crowds were baptized.

Christians in Rome were in the habit of meeting in underground passages, or "catacombs." In one of those catacombs, this attempt to picture Jesus has been found. The animal is meant for a sheep, which Jesus as "the good shepherd" was carrying on his back.

Belief in Jesus spread to Rome. He was spoken of as "the Christ," which means "the savior." His followers became known as "Christians." For a long time the Christians were well treated by the Romans. Then an emperor decided that they were bad persons. Some of them were placed in the arena and wild beasts were allowed to tear them to pieces.

The Christians tried to keep out of the way of the emperor, and went to pray in hidden places; but when they were caught, they met death with courage.

The cruelty of that emperor, and others after him, did not stop

persons from becoming Christians. Before long, Rome contained thousands of members of the Church of Christ. Even so, they were only a small part of the people of the city, perhaps one-tenth. Then an emperor named Constantine joined the church. Everyone wanted to be in favor with him and his example was followed by people of all classes.

The Pope of Rome

The Christians of early days split into two great parts. Those in the east became members of the so-called Greek church. Those in the west looked to Rome as the center of power.

There is some dispute about the way Rome happened to become the

A bishop of Rome, or pope, in the midst of other churchmen.

chief city of the western church. Some persons say that Peter, an apostle of Jesus, went there. Others contend that Peter never entered the city.

However that may be, it was natural for Rome to become the center of churchly things. People in western Europe were in the habit of looking to Rome as the leading city. The chief Christian of Rome was the bishop. He was often called "papa," by the Romans. Nowadays, he is called the pope, which means papa or father.

Many bishops were at first called "papas," but later on, people gave the name only to the bishop of Rome.

Priests and bishops were sometimes in doubt about some point of religion. They would then go to the pope of Rome and ask him to decide. In time, he was looked up to as chief of all the priests in the western church.

Trouble in the Early Church

The early Christians were much troubled as to what they ought to believe. It was not easy to ask the pope of Rome about every point; and some did not care to ask the pope even if they could. Ninety kinds of Christian belief are known to have arisen in those early days. One group of Christians called themselves "Adamites." If an Adamite could come back and tell us what he believed, this is about what he would say:

"The world was made by Satan, not God. The only thing God made was the human race. The first man was Adam, the first woman Eve. Adam and Eve had a chance to be good, but they fell into sin. In the same way, every person has a chance to be good. The greatest sin of all is to get married."

Some of us will smile over the Adamites' objection to marriage.

We have not the space here to speak about all the other creeds which sprang up in those early times. The important fact is that church leaders saw danger ahead. If people kept changing their beliefs, much trouble would come to the Christian church. To keep beliefs the same, a great council of priests and bishops was called. They came together at Nicæa, a small city not far from Constantinople. After much argument, they decided what all Christians ought to believe after that.

CHAPTER XXIII

THE CITY DUG FROM ASHES

In the year 79, two cities in Italy were buried when a volcano broke loose. The volcano was Mt. Vesuvius. Its lava poured down and buried Herculaneum, while its ashes covered Pompeii. The latter city has been better preserved, and a great work has been done in digging the ashes away from the houses and streets.

Pompeii was built on a hill not far from Mt. Vesuvius. It covered only a small space, about a quarter of a square mile. If it had not happened to be buried by ashes from the volcano, you and I probably would never have heard of it.

As it is, we know more about the real life of Pompeii than of any

A street corner of Pompeii as it was when dug from under the volcano ashes. Many of the houses had two or three stories.

other city of ancient times. The walls of scores of its houses are still standing. We can see the remains of its shops, as well as its paved streets.

The ruins at one spot in the city, are pictured. Notice the narrow street. Overhanging balconies of buildings often shaded the highways

of Pompeii in a way which was welcome to the people. Shade is always a great help when the weather is as hot as it becomes in southern Italy.

Pompeii's Market-Place

Pompeii copied after Rome in a great many ways. One of these was in regard to the market-place. Rome had a market-place called the Forum. So did Pompeii. In each case, the place was used for public speeches, as well as for buying and selling.

Among the ruins of Pompeii are paintings of scenes in the Forum. A sketch of one of these is shown.

In Pompeii's Forum.

To the left of the picture you see a man sitting on a round-backed chair or stool. He is a tradesman, and his wares are in front of him. He is talking with two customers. We can make out the clay jars on the ground, but it is hard to say what the objects on the table are meant to be.

At the right of this picture are persons seated on benches, one of them a mother with her baby. You will be interested in the clothing of the figures. The togas of the men are almost like dresses. The

statues of men on horseback are meant to represent messengers of the Roman emperor.

Other pictures found at Pompeii show cloth-sellers, bakers, wine-merchants and copper-smiths.

"Newspapers"

There were no printing-presses in use among the Romans, but they had what might be called "newspapers."

Roman newspapers usually came out daily. They were written by hand and were posted on boards in the public forums. The news for these boards was gathered by persons working for the government.

Even more like newspapers were the *copies* of what was posted on public boards. These copies were made by persons who earned their living that way. They were sold to those who did not care to go to the Forum and read about what was happening.

What news did the Romans read? Many kinds. If the emperor said that everyone must do this, or must not do that, his words were posted in the forums of cities in Italy. There was also a record of the laws passed by the senate and of the results of court trials.

Those who were interested in sports could read the programs of the circus and fights in the arena. Births and deaths in the city were announced.

News of what was happening in other cities and countries was rather scarce. The only events from abroad likely to be noticed were great fires or earthquakes, or victories of Roman armies.

Fighting Animals for Fun

The Romans were in the habit of making war on almost every country they could find. It is no wonder that they liked to be amused by the shedding of blood.

One event which always brought out a big crowd was the animal

hunt. It was held in a field known as an "arena," which had seats all around a central space. There were arenas in Rome, Pompeii, and many other cities in Italy.

Sometimes wild beasts were let loose to fight each other. A panther might fight a bear, or a bull might fight for his life against a lion. The elephant and the "hippo" were also to be seen in the arena. Now and then, small lakes were made at one side of the field and crocodiles were placed in them.

A scene in an arena at Pompeii. One animal is receiving its death-blow, but a wild boar is charging the man from behind.

Even more popular were the combats between men and animals. Several paintings of such fights have been found at Pompeii. The men were often helped by dogs. The wild beasts were usually boars, bulls, bears or lions.

Two gladiators on horseback charging each other. From a picture found in Pompeii.

Public Fights Between Men

The Romans were not content to have men fight *animals* in the public arenas; they arranged to have men battle *one another* with spears, swords and knives.

The men who did this kind of fighting were called "gladiators." They were usually slaves who had been captured in war. Now and then they were the sons of "noble" families. Having lost their fortunes, the young nobles entered the arena to make money to live.

Thousands of persons gathered around arenas in every part of Italy to watch these "amusements." There were training-schools for gladiators in many places. One such school was at Pompeii.

It was once proposed to have such bloody games at Athens; but the attempt failed. An Athenian leader said that before the city could do such a thing, it would "have to tear down the Altar of Pity."

A Riot at a Public Fight

Not far from Pompeii was a town called Nuceria. On a certain day in the year 59, many persons from Nuceria went to Pompeii to watch gladiators fight in the arena.

The riot at the Pompeii arena. At the right is a building where gladiators stayed when not fighting.

There was rivalry between the people of the two places. The Pompeiians made fun of the visitors. The visitors returned the taunts. Someone threw a stone. The example was followed by others.

The blood of the audience had already been made hot by the sights of the arena. Now came an outburst. Sticks and stones flew thick and fast. Even spears were hurled.

It was a riot.

Many of the audience fled, but others stayed to fight. Several were killed and a large number were injured. The Nucerians got the worst of it, because they were the fewer.

We have a picture of this riot made soon after it happened. This picture was not well made, but there is action in it. At the center of the arena five figures can be seen. Probably there were a hundred or more persons there during the riot, but the artist did not know how to picture a crowd properly.

The Roman senate punished Pompeii for this riot by shutting down the arena for ten years. After that time was up, the "sporting people" watched fights for ten years more—until a volcano put an end to Pompeii's life.

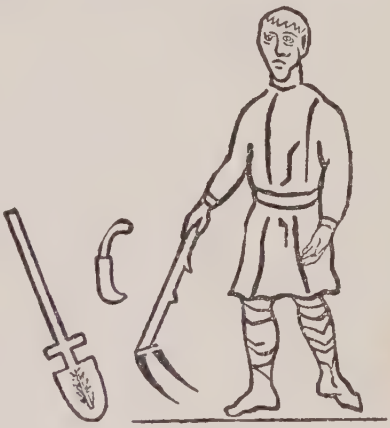
CHAPTER XXIV

SLAVES OF ROMAN DAYS

It was dangerous for people to walk along country roads in Italy during early Roman times. There was no telling when a band of slave-traders might rush out upon the road and capture them. Thousands of men, women, and children were taken and made slaves in this way.

Another way slaves were gained was by seizing persons who fell into debt. A "freeman" might owe money which he could not pay, no matter how hard he tried. Then he could be sold as a slave.

In some wars the Romans took thousands of prisoners who became slaves. All the rich families in the city had large numbers of slaves. The master could put them to death if he wanted to; but he seldom did so because slaves were worth money. Beatings, however, were common.



A crude drawing of a Roman farm worker, holding a two-pronged hoe. A pruning hook and a spade are to be seen at the left.

There were several slave-markets in Rome. The unhappy persons who had been captured were sold at auction. They were trotted around as if they were animals for sale.

Probably the hardest life was led by slaves who worked on farms. From sunrise to sunset—or even longer—they toiled, picking grapes or olives, caring for herds, and taking care of growing crops.

The Slave Who Was a Thinker

One of the greatest thinkers of ancient times was a Roman slave called "Epictetus." That was not his real name. It meant "one who

has been taken." We do not know what was his real name, so we, too, must speak of him as Epictetus.

This slave was a Greek by birth. He knew much more than his master. There is a story that the master once became very angry toward him, and twisted his leg.

Epictetus was an unusual slave. He did not howl or shriek. Looking calmly at his master, he said, "If you twist my leg any farther, you will break it." The master, in the heat of his anger, twisted even harder. The leg was broken. Then Epictetus said with a smile:

"I told you that if you twisted my leg farther, you would break it."

Whether or not this story is true, we cannot say; but we do know that Epictetus was lame, and we are sure that he was able to bear pain bravely.

For a reason not known (perhaps because he was lame), he was set free, and became a teacher. Many young men crowded around him to hear his words of wisdom. One of his pupils wrote down much of what he said. Some day you may read the "Golden Sayings of Epictetus."

The chief thing the lame thinker taught, was that we should keep our peace of mind at all costs. He said that we would not put our gold and jewels at the mercy of anyone on the highway. Then why should we let anyone take away our peace of mind?

Household Slaves

Many Roman homes contained hundreds of persons. Most of these were slaves who acted as servants. The slaves did the work and the family enjoyed the good things of life.

It was a Roman belief that a slave had no soul. He was treated like one of the lower animals by most of the masters. If he tried to run away, red hot irons were pressed against his face and he was marked forever.

Certain masters were so cruel that they did not deserve the name of men. It is said that a slave once broke a vase, and just because of that was hurled into a pond so that he might "feed the fishes."

Other Roman masters were not so inhuman toward their slaves. Some of them set free the men and women who were working for them; but in most cases, the slaves worked on.

A scene in a laundry during Roman times.

If you could go back to a large Roman household, you would be likely to find slaves who were tailors, carpenters, shoemakers, masons and laundry workers. One ancient picture shows a man brushing off a shirt which hangs from a rack. Another man is carrying a kind of cage into the room. This cage was used for spreading out woolen cloth to be whitened by the fumes of sulphur. A woman slave is showing a piece of her work to the head-slave of the laundry.

Slave Life in the Country

Nowadays a great many persons eat "oatmeal"—oats which have been rolled flat. In Roman times, oats grew wild in many parts of Italy. The Romans thought that the plants were weeds, and were amazed when they found that "barbarian" tribes north of Italy were in the habit of cooking oats to eat. Potatoes and rice, as well as oatmeal, were absent from the tables of Romans.

The chief grains used for food were wheat and barley. Turnips, radishes, beans, peas and garlic were also raised. Grapes, apples, pears and figs were among the fruits.

Owners of large farms almost never lived on them. They thought that it was more pleasant to live in Rome or at some place by the sea-

shore. Now and then they paid a short visit to a farm, but that was only to see that the slaves were doing their work properly.

Chains were sometimes placed around the legs of slaves at work in the fields. That was done to keep them from running away.

Slaves at work on a Roman fruit farm. To the left a slave is receiving a beating.

Each slave was given a small amount of grain each month. He ground it himself, and then it was baked by a woman slave.

The master was glad when he heard that the slaves had quarreled among themselves. Such quarrels made it less likely that they would ever get together and fight against him.

On most large farms was an underground prison. Here the "dangerous" slaves were penned up at night. There were windows, but they were very small and could not be reached from the floor.

The slaves hated one man besides the master. That was the overseer or steward. He was usually a slave himself; but he was placed over the other men to drive them to the hardest kind of labor. Often he used a whip. He wanted to gain favor with the master, hoping that some day he would be freed from slavery.

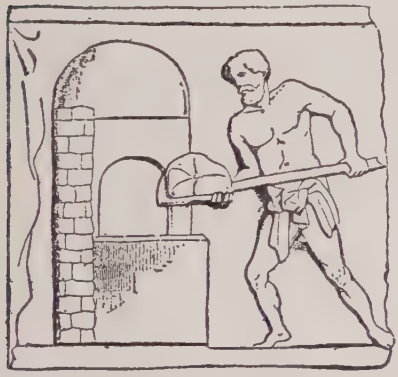
Bakers and Trading

Roman women of the richer class were able to walk along one particular street and buy almost any trinket or piece of finery their hearts might desire. Fans made from peacock feathers, earrings of gold or silver, and ivory dice, were among the articles on display.

Trading was done at little shops which lined either side of the street, making it narrower than ever. The shops were more like booths than stores. The whole front was open, except (sometimes) for linen curtains which did not hide very much of what was for sale.

Selling bread in Roman days.

Some shop-keepers were slaves placed there by masters who wanted to gain more riches. Others were so-called "freemen," who were in business for themselves. There were so many persons trying to sell things that few of the "freemen" made more than a bare living.



A baker shoveling bread dough into a large oven.

A record shows that at one time there were two hundred and fifty-four bakery shops in Rome. A scene at such a shop is pictured. A man is buying a loaf of bread. Notice what a queer shape the bread had. It wasn't queer to the Romans, of course—they would have thought *our* loaves queer.

Another picture shows a baker shoveling dough into an oven. That must have been hot work. The man wears hardly any clothing. He was doubtless a slave.

CHAPTER XXV

THE COMING OF THE BARBARIANS

While Rome was at the height of its power, before the time of Christ, people from the north tried to get down into Italy. These people were called the Cimbri and Teutones. They came from the north of Europe, and led a half-savage life.

The Cimbri and Teutones were searching for better homes. With all their worldly goods loaded on rude wagons, they made their way southward. The Romans were full of alarm and sent armies against them. Fierce battles were fought, and the home-seekers were beaten, Thousands were killed, others were taken prisoners.

Some years later, Julius Cæsar led armies into a country called Gallia or Gaul. It was about the same land which now bears the name of France. Part of the tribes in Gaul had been conquered before by the Romans. Cæsar now conquered the rest.

The soldiers with oval shields are Germans in the Roman army.

Pushing farther to the north, Cæsar met with fierce tribes which lived beyond the Rhine River. These tribes were Teutons or Germans. They are believed to have been related to the Cimbri and Teutones. Cæsar won some battles, but he did not conquer the German tribes.

During the next two hundred years or so, few battles are on record between German tribes and the Romans. There was, however, some meeting between the two races. Roman traders went among the Germans and sold them goods. Sometimes, German men were hired to come to Italy and join the Roman army. They made excellent soldiers.

The German Tribes at Home

We know a little of how the Germans were in the habit of living in their northern homes. It seems that they kept flocks of sheep and herds of cattle. They lived in huts, often placed together in small villages. They knew how to make tools and weapons from copper and iron.

Salt was scarce among them. When they could not find it "ready made" by nature, they might proceed in this manner:

A group of men would go to a salt-water spring. They would fill clay jars or leather buckets with the water. Then a bonfire would be built, and loaded with logs. When the fire was as large and hot as they could wish, they would throw the water upon the blazing logs. There would be sputtering and puffing and clouds of steam. At last the fire would go out, and the men would look at the remains. The logs would be coated white—from salt left by the water.

This method of getting salt was often used by the Germans, if we may believe a Roman writer who knew something of their habits.

The German tribes had priests, who told about gods and goddesses. Among their gods were Woden (or Odin) and Thor. When we speak about the Northmen (who were of German stock) you will hear of stories told about those gods.

German clothing was sometimes cut from the skins of animals. The hide of a bear or wolf was thrown loosely over the body, and nothing else might be worn except, perhaps, a finger-ring or necklace. Some Germans, however, wore woolen robes and long trousers. At least a few of them wore garments which had been woven from flax thread.

Many persons went around bare-footed. Others wore sandals or shoes. These were made from the skins of animals. Some Germans knew how to tan an animal skin and make it leather.

Most of these northern people had flaxen or light brown hair. All of the women, and many of the men, let their hair grow long. Blue eyes were common.

When winter came, some German families spent part of their time

in holes, or "cellars," dug under their huts. This helped them to keep warm. The men were fond of gambling.

The Goths Move South

Among the German tribes were some called Goths. For one reason or another they began to move southward. It is supposed that they may have been "pushed" by the tribes north of them. At any rate, they reached the borders of the Roman empire, and asked for homes. The Romans did not care to give away their land, and tried to keep them out. Sometimes the Romans made false promises, and killed the Germans after they were let into certain lands. In other cases, pitched battles were fought.

A German warrior with shield and club.

The Goths proved that they were able to stand up against the armies of Rome. Time and again, they won victories. Some tribes forced their way southward into Greece. Other tribes fought their way into Italy. Rome was captured, and part of the city was burned. The Goths made themselves masters of Greece and much of Italy. Other German tribes, the Lombards, conquered the rest of Italy. The Roman empire did not gain back its power.

A German archer.

Before the Germans entered Greece and Italy, some of them had turned Christian. Priests had gone among them, and had told them that they ought not to pray to Thor or Woden, but to Christ. Those who were not converted, soon took on the Christian religion after coming into the southern countries.

When we speak of the Germans winning Greece and Italy, we must not suppose that they killed all the people they found in those coun-

tries. That was by no means so. They simply settled among the natives, after winning battles. Many Goths married Greeks; while the natives of Italy married among the Lombards and other German invaders. The Germans took on some of the customs of the Romans.

In later chapters you will hear of how other German tribes entered Gaul and Britian. Southern Europe was now under the power of a different race of people. They were crude and not well civilized. Much of the rest of our book will tell of the slow steps by which Europe became civilized again—until there came a time when the people were far above the Romans in things which had been learned.

CHAPTER XXVI

THE FRANKS AND THE SARACENS

The city of Paris is more than two thousand years old. It was at first called Lutetia, but later received the name of Paris from a tribe of Gauls called Parisii. At first it was just a little town on an island in the Seine River. It was a place for leaders of the tribe to get together and talk things over. Paris was a pretty place, and was often visited by Roman emperors.

Some of the Gauls were called "trousered Gauls" because they wore long trousers. Others were called "long-haired Gauls" because they did not cut their hair. A portion of the Gauls lived across the Alps in northern Italy. These became very much like the Romans in the way they dressed and did things. In fact, you could hardly tell them from the Romans.

How France Got Its Name

"Look out for the Frankos!" Roman generals in Gaul might well have cried those words almost seventeen hundred years ago.

The Frankos were a group of fierce German tribes. For a long time they had been living near the banks of the Rhine. The Romans thought themselves safe, but they did not know what was ahead.

There were almost no soldiers to defend Gaul. Rome had called her armies back to Italy to fight the Goths and Lombards. The Frankos saw their chance. They fought their way southward and won control over all Gaul.

The Frankos came to be called Franks, for short. Gaul was called "Frankland," and later France. The chief French coin is now called a "franc."

The Franks did not wander around so much as other German tribes.

They liked the country they had found and stayed there. Very slowly, they learned things from the Roman settlers and from the Gauls.

While they were tribesmen, the Franks did not have regular kings. They simply had "chiefs" to lead them in war. After they settled down in France they let themselves be ruled by a king.

The first noted king was Clovis. That name was later changed by leaving off the "C." It then became "Lovis," and still later "Louis."

When Swords Bought Cows

"Seven cows for a sword and scabbard!"

Such offers were often made among the Franks in days when they were winning power in Gaul. Perhaps you wonder why they were willing to pay such a big price for a sword and its holder. The reason was that iron was scarce among the Franks. Shields and lances were not worth so much as swords, but if a man had a shield and a good lance, he could get two cows for them.

A two-wheeled carriage in Frankland more than a thousand years ago.

Shields were usually made of tough wood. Sometimes there was a piece of iron at the center. Lances were light spears, tipped with iron.

Frankish warriors had the habit of making a great noise when they

went into the fight. They yelled and shouted with all their might, holding their shields in such a way as to make the sound even louder. From early youth, boys were trained to prepare for the time when they would go to battle. They threw small lances and learned to ride horseback.

An Attack by Mohammedans

While the Franks were getting settled in their new country, they fought a great deal among themselves. Then came a time when they could join together and fight a common enemy—the Mohammedans or Saracens. A mighty battle was fought against them in southern France.

Who were the Saracens and where did they come from? To answer the question, we must go back a hundred years in our history. In Arabia a man called Mohammed began to preach. At first he talked only to close relatives and friends. He said that he had been sent by "the God of the Jews" to tell the people about the true religion. Among his first converts were his wife and a cousin. Meetings were held in secret in the town of Mecca; but the secret leaked out.

Fearing to be punished for starting a new religion, Mohammed fled to Medina. In that small city lived many Jews, and they helped in preparing a welcome for him. Belief that Mohammed was a prophet, spread among the people living in Medina.

In those days, Arabia was a place where caravans passed to and fro. Merchants with loaded camels crossed the desert, making trade between the west and east of Asia. Partly to take revenge on Mecca for driving him away, Mohammed sent men to capture a caravan bound for Mecca. A rich booty was obtained. Later, a force of a thousand soldiers from Mecca fought with three hundred followers of Mohammed. The army from Mecca was beaten. Mohammed claimed that his men had been helped by angels from heaven.

Not long after that event, the people of Mecca decided to pray to Allah, the name by which Mohammed now called "the God of the

Jews." It seems that Mohammed had changed the name after a quarrel with Jews in Medina.

Some of the followers of Mohammed wrote down the words they heard him speak. In later years, all the writing of this kind was put together and called the Koran. To believers in Mohammed, the Koran became a sacred book—like the Bible to Christians.

The Spread of Mohammed's Teachings

Mohammed taught that there was Allah, the creator of the world, and no other god. He said that there was a heaven for the good, who believed in Allah. For the bad (especially for those who did not believe in Allah and Mohammed), he declared that there was a place of suffering after death.

Mohammed died when he was about sixty-three years old. His followers (the Mohammedans or Saracens) felt sure that he was the greatest prophet who had ever lived, greater than Christ. They learned to bow in the direction of Mecca, the city where their leader had been born.

Saracens were taught that it was good to fight against other people and make them believe. Armies were formed to spread the doctrines of the Koran. To many countries the armies marched, bearing this message:

"If you will believe in Allah, and in Mohammed his prophet, we shall do you no harm, or make you pay tribute. If you will not believe, we shall burn and kill."

The Saracens believed that if they died "fighting for Allah," they would go straight to heaven. That made them fight without great fear of death. On almost every hand, they won power. Their armies marched to India, and to this day there are millions of persons in India who believe in Allah and Mohammed.

Armies also marched westward, through northern Africa. Egypt took on the faith of the Saracens. In time the Saracens crossed from

northern Africa to Spain and drove the Christian Spaniards to the north.

The Saracens who came to Spain were known as Moors. They were people with rather dark skins, being a mixture of Arabs and tribes in northern Africa. The Moors fought their way to the border of France, and entered the country.

The Franks gathered to meet them. A battle was fought near the city of Tours. The Saracens were beaten and driven back to Spain. After that, they did not try to enter France again; but they remained in Spain for more than seven hundred years.

Making Arithmetic Easier

The Saracens did not spend all their time fighting. They settled down in different countries, and learned things. From the city of Alexandria, in Egypt, the Saracens learned a great deal about the science known to ancient Greeks and Romans. This knowledge was spread to other countries where the Saracens went. In Spain the Moors started a university which became famous all over Europe. Scholars came there from France, Italy and other Christian countries.

One thing for which we must thank the Saracens is the present system of writing numbers. Before the Saracens came to Europe, numbers had been written in the Roman way: I, II, III, V, X and so on. Can you see how hard it was to add or divide or multiply such numbers? Suppose that you were asked to multiply 106 by 63, in Roman numerals; you would need to set down CVI x LXIII. The Romans were able to multiply in spite of their clumsy numbers; but you can imagine what a hard job they had.

The Saracens brought word of the simple 1, 2, 3, 10, 100 and so on, to Spain. Students liked that system of numbers, and it slowly took the place of Roman numerals in Europe. It is believed that the Saracens learned their simple numbers from the people of India.

Charles the Great

Some years after the Saracens were driven out of France, a prince named Charles became king of the country. He is known in history as Charlemagne, which means Charles the Great.

King Charles was not content to rule over the same kingdom as his father. He wanted greater power, and by the use of Frankish soldiers he spread his rule over a large part of western Europe. North of the Rhine he gained power over most of what is now Germany. Into Italy he marched and became master of much of that country.

The pope of Rome was a friend of Charles because the king helped him keep power over certain land in Italy. One day, Charles went into St. Peter's church at Rome. The pope came to him and placed a crown upon his head, saying:

"I crown you Roman emperor."

That happened in the year 800. Charles held the title of Roman emperor until his death, but he ruled only the western part of the old Roman empire. Greece and other lands to the east were ruled by an empress at Constantinople. Other countries in Africa and western Asia, once ruled by Romans, were now in the hands of Mohammedans.

A King Who Tried to Write

A palace, a bed, a pillow, and paper!

It was morning. In the bed lay Charles the Great. He had an earnest look on his face. Suddenly he sat up. Reaching under his pillow, he pulled forth the paper and placed it on his knees over a small flat board. Pen and ink were on a chair by the bedside.

The king picked up the pen, dipped it, and began to make marks on the paper. For a while, he made figures and smiled as he saw that he was able to add and subtract.

Then the smile passed away.

"I must quit this now," he said, half aloud. "I know full well that

I can do the numbers, but how about the letters? Ah, yes, I must get at the letters!"

Two nobles who lived in the land of Charles the Great.

Charles then began to form the "o," the "m," and whatever other letters came into his head. He did this awkwardly, but a person might have been able to tell what letters he had tried to make.

"Now let me write a word, nay, a whole sentence," he said. "Yes, I'll write the one Albin tried to teach me yesterday."

Boldly he began the sentence, but before he was half way through, he stopped, saying:

"I can't remember how to make that next word, and anyway what I've done must be full of mistakes. Here, I'll compare it with what Albin wrote."

He reached under his pillow again, and brought forth another piece of paper. It contained the writing of Albin Alcuin of Britain, a great scholar who had come to France to teach the king.

"How beautiful this writing is!" exclaimed the monarch. "Think of the difference from my poor attempts."

He looked closely first at one piece of writing, then at the other. His face became sad and drawn.

"I can't do it," he murmured, and a groan escaped from his lips. "My writing is simply full of mistakes. I began to learn too late."

Then his brow grew tense. He set his teeth together and clenched his fist.

"It shall not be so for my sons!" he cried. "They shall be taught the letters while they're young. So shall every free youth in Frankland who wants to learn and is able to do so."

. . . . . .

The story just told is based on a record of Charles' life made by a man who lived in France at the same time as the king. This scene is as near a picture as I can give you of Charles' vain efforts to learn to write.

The monarch could not write well himself, but he ordered the bishops and monks to carry on schools, so that others might learn while young. The schools he started helped the Franks to become better civilized.

Flutes and Trumpets Among the Franks

In the time of Charles the Great, a list of the musical instruments was made. There were twenty-four kinds!

This picture was made a thousand years ago. It will give you an idea of "Pipes of Pan," a kind of flute which was very well liked.

Making sounds by blowing was a favorite way. For such sounds the Franks used flutes, trumpets and horns.

There were several kinds of flutes which the Romans had brought into Gaul. Of course there was the common straight flute, with small holes on the outside and a large hollow in the center. More interesting was the double-flute. It had two hollow parts, one longer than the other. The shorter part made a shrill sound. It was called the "woman's tube." The longer one made low, "bass" notes. It was said to be the "man's tube."

There was also a flute with seven tubes. This was sometimes called "Pan's pipes," because of the story that it was invented by the Greek god, Pan.

Trumpets had long been used by German tribes of the northland. The Franks were fond of the trumpet because it made such a loud noise. Some trumpets were so heavy that they had to be held on stands while being played. The player needed all his strength to get up a good big breath to blow.

A king who ruled over France after Charles the Great.

After Charles the Great

Charles the Great had a son named Louis who ruled over the same lands as his father—France, Germany and Italy.

The sons of Louis fought battles to see which should own certain lands in this empire. Finally they made an agreement called the Treaty of Verdun. This was one of the most important treaties ever made. It provided that:

One son should have France.

One son should have Germany.

One son should have Italy and a strip of land between France and Germany.

In years after that, one king or another tried to get those countries together again, but never succeeded.

Leaving the continent of Europe for a while, we shall now pass over to the island of Britain and see what had been going on there.

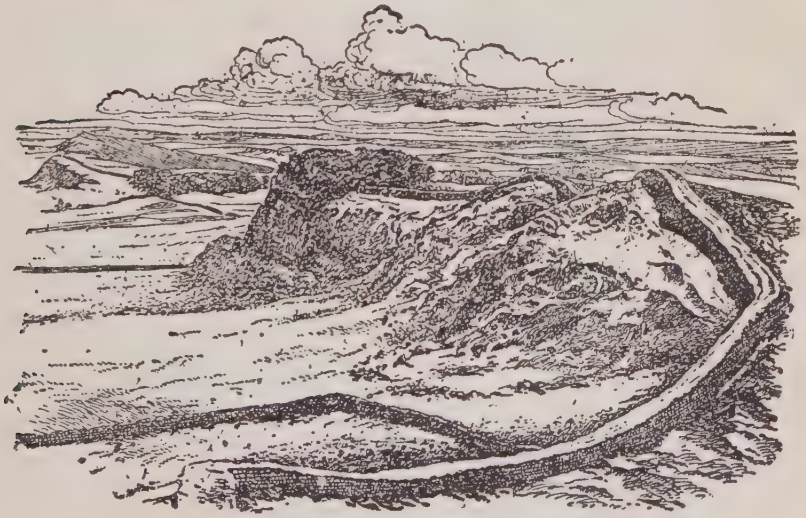
CHAPTER XXVII

ANGLO-SAXONS IN BRITAIN

"The painted people!"

That is what a Greek named Pytheas called the people of Britain when he sailed back home, about two thousand three hundred years ago.

The Greeks in that ship had visited Britain for only a little while, but long enough to learn that the natives painted their faces. So they were called "Pretanes" which meant "Painted People." Later they were called Britanni or Britons. The natives soon forgot about the Greeks, and went on with their half-savage lives.



Remains of the Wall of Hadrian.

Three hundred years later, Roman soldiers led by Julius Cæsar came upon the scene. They fought the Britons, and stayed for some years on the southern part of the island. Then they withdrew to Gaul.

A century later another group of Romans appeared. This time

they were prepared to remain for a long time. The Britons fought them, but were beaten. Some fled to Scotland and Ireland. Others stayed in the part of the island now called England, but were ruled by the Romans.

The soldiers of Rome built many fine roads on the island. Remains of some of them may still be seen in England. The Roman name for camp was "castra." This word has come down to us in the names of certain English cities, such as Lancaster.

Perhaps the most famous thing done by the Romans was the building of the "Wall of Hadrian."

Hadrian was a Roman emperor. During his reign, the Romans in Britain built a great wall just south of Scotland. This wall stretched from one side of the country to the other. It was built at a spot where England is rather narrow, and was about seventy miles long.

The Wall of Hadrian was made of stone. It was about three times as high as a man, and was eight feet thick. In front was a ditch.

The Romans built this wall so that they would not need to worry so much about the savage Britons of the north.

Anglo-Saxon Soldiers.

German Tribes Enter Britain

When the Goths began to fight their way into Italy, the Roman rulers decided that it was time to call for help. They sent word to the Roman soldiers in Britain to come home at once. Britain was laid open to German tribes and they came, in great numbers.

The newcomers were from the north of the Rhine River. They were Germans of three main kinds: Angles, Jutes and Saxons. The Britons fought to keep them out, but they entered the island, and they stayed. Britain was given a new

name, "Angle-land." This was later changed to Angland or England.

After settling in their new country, the Angles and Saxons mixed a great deal. It is hard to tell whether certain things were done by Angles or Saxons. For that reason, we often speak of them together. We call them Anglo-Saxons.

Hair-cuts and Freedom

Was hair dyed blue in early times in England?

That seems likely. Before me as I write is a colored picture of four women and eleven girls. This picture was painted for a hand-written Bible of the Anglo-Saxons. The women in that picture all have hoods over their heads, so we cannot tell the color of their hair.

Anglo-Saxon Women Weaving.

The girls, on the other hand, are bareheaded. Their hair is pictured as if it were blue!

Almost all other colored pictures of Anglo-Saxon women show them with their heads covered, but there is a picture of Eve in one Bible and she is given blue hair.

We must remember, though, that the artists may have been short on black or brown paint, and may have used blue instead.

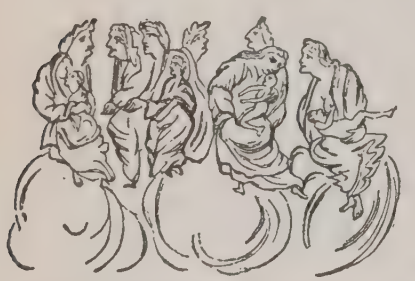
Long hair was a sign of freedom among the Angles and the Saxons. If a man or unmarried woman suffered a hair-cut, it was thought a disgrace. Short hair was the badge of a slave or criminal.

When women were married, their hair was often cut. This was to show that they were servants of their husbands! Later, the wives refused to have their hair cut and wore it in folds on top of their heads.

Anglo-Saxon Women at Home

Anglo-Saxon women had sense enough to refuse to be ruled entirely by their husbands. They kept getting a little power here, and a little there.

After a time, some of the laws were changed. The wife was allowed to hold property of her own. When her husband died, part of his wealth went to her, unless she married again within a year. If she did that, she lost her right to inherit any property. If her husband had given her any land while he was alive, she lost even that.



The Anglo-Saxon artist who made this picture called the women "gossips." He made them look as if they were seated on clouds.

Women in Anglo-Saxon days spent much of their time spinning and weaving. They also liked to embroider. English women became famous for their needle-work. Even queens, princesses, and other "noble" women were skilled with the needle. One old record shows that a certain young woman was given a tract of land because she had taught the daughter of a noble to "embroider with gold thread."

Camels and a Bible Picture

A Bible, written by hand and used by Anglo-Saxons, has been saved down to the present time. It contains many curious pictures, but none more curious than "The Wives of Jacob" riding on camels.

The man who made the pictures for that Bible doubtless felt "stumped" when he was told to draw camels. Perhaps he had heard

"Jacob's Wives Riding Into Canaan." From this picture, you can gain an idea of the head-dress and skirts of Anglo-Saxon women, because the artist drew the "wives" like women of his own country.

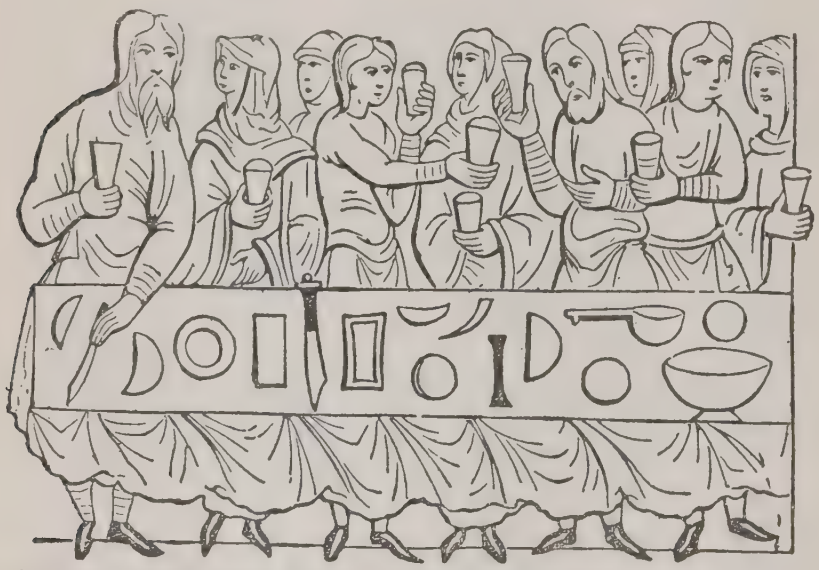
something about camels from travelers, but I am sure that he had never seen one. At any rate, he was bold enough to try. The result looks like a mixture of horse and giraffe.

Each "camel" has a load that is surely heavy enough, and certain of the women seem to be on the point of falling off. The women so far as we can tell, are seated sidewise. The side-sitting fashion for women began very far back in history. Other pictures of the same time show women riding "straddle."

Perhaps you would like to know what kind of names Anglo-Saxon girls and women had. Among them were Elgiva, Brunehild, Eadburga, Godiva and Edith. These names had meanings. Elgiva meant "gift of the elves." Eadburga meant "stronghold of joy." Edith meant "the happy gift."

Dinner Parties in Old England

Several pictures of Anglo-Saxon dinner parties have been saved for us, and one is shown to you.



An Anglo-Saxon dinner party, as pictured by an artist 1,000 years ago.

What a queer picture! The table looks as if it were falling toward the floor. It was drawn that way because the artist wanted to show what was on top.

The persons around the table are mainly women, but you can make out two men. They have beards. Notice the glasses held in air. Probably they were full of ale or beer, favorite drink of German tribes.

How many things can you make out on the table? Among those I see are knives, a round plate, an oblong plate or platter, a large bowl and a dipper.

Under the table, the feet are in view. They all seem about the same size, proving again what a poor artist made the picture. You can learn, however, something about the kind of shoes which were worn.

The largest dinner parties were given by kings and nobles.

Each part of England had a king of its own, but now and then there was a strong king who won power over most of the country. Such a king was Alfred.

King Alfred spent a great deal of his time fighting the Danes, rough men from the north who often swooped down upon England. They gained some land and settled. Alfred did his best to drive them out and keep them out. No doubt you have heard the story of the cakes he let burn. He did that, 'tis said, while thinking of a plan to fight the Danes. After years of fighting, King Alfred managed to make England fairly free of the Danes; but in later times they came back and won full power over the country.

CHAPTER XXVIII

MYTHS OF THE NORTHMEN

Long ago, there lived in the far north of Europe a race of people who came to be called Northmen or Norsemen. They were related to the German tribes which had swept to the south of Europe and conquered most of the Roman empire; but for a long time after that happened, the Northmen remained in their homelands, in the countries now known as Norway, Sweden and Denmark. They then began to make a great number of sea raids upon countries in the south of Europe.

We shall speak of those raids in the next chapter, but now let us become acquainted with the Northmen by hearing the stories they used to tell about the world and the gods.

Trying to explain the beginning of things, the Northmen said that at first there were two worlds, one of fire, the other of snow and ice. Sparks fell on the snow and made a vapor from which grew a mighty giant, cold and frosty. This giant's name was Ymir, and he lived by drinking milk which flowed in rivers from a huge cow.

Where did the cow get her food?

The Northmen were ready with an answer to that question. They said that she licked up hoar frost with salt in it. That must have been a poor diet, but the cow got along as well as she could.

When frost was licked from a certain spot, a strange thing happened. Hair like that of a man came into view. Then the head appeared, and finally the whole body of a living being—the first god. He married a daughter of Ymir, and they had a son who was also a god. The son became the father of quite a number of children, one of them named Odin. Odin and his brothers knew that Ymir was a bad fellow because he made the weather so bitterly cold. A war was started against him and the younger Frost giants.

"How the Earth Was Made"

Ymir was killed in the war, and his blood (snow and ice) flowed over space. All the younger giants were drowned, except one. This one escaped in a boat, and later became the father of other giants.

Ymir's blood became the oceans and seas, the Northmen believed. His flesh became the earth, his bones the rocks and cliffs. His skull became the arch of heaven, his hair the bushes and trees.

A queer story, I am sure you will think, but so are many other stories about the beginning of the world.

To explain how people first came to be, these men of the north declared that a man and a woman had been made from two trees by Odin and two brothers.

The Northmen did not *know* about the shape of the earth but they spent time guessing. Their guesses were very different from those of the Egyptians, Greeks or Romans. Northmen said that the whole world was contained in a tree. This tree had mighty roots which stretched into the darkness below. The roots were watered by "the three Fates," the Present, Past and Future.

In the middle of the tree was a place called Midgard. That was the part of the world where human beings spent their lives hunting, fishing, sailing, rowing and fighting.

Up at the top of the tree was the land of the gods, who lived in gold and silver palaces. Chief of the gods was Odin, but he had a son who seemed just as great in the minds of some Northmen. That son was Thor.

Thor and Balder

When thunder sounds, we shudder or tremble. It seems that we can hardly help ourselves. We may know that lightning, which causes thunder, seldom hurts anyone, but still we start or jump when we hear a peal or clap. How much more must the olden Northmen have noticed the thunder! They lived in small huts in forest and

Thor riding over the clouds behind a team of goats. He is getting ready to hurl the hammer which is supposed to cause thunder.

field, instead of in large houses in cities. Storms seemed to burst right overhead.

We cannot blame these rude tribesmen for thinking that thunder must be caused by some god. They knew nothing of the electricity which composes lightning. They thought that some godlike being must be making all the noise.

This god they called Thor, and said that he made thunder by hurling his hammer across the heavens. When the rumble came, people would say:

"Thor is throwing his hammer again."

Those who were timid would pray, asking Thor not to hurt them. We get the name "Thursday" from this old Norse god. It used to be spoken of as "Thor's day."

The warm and kindly sun—all of us love it and thank it for the light and heat it gives. Almost all people of ancient times were thankful to the sun, and thought that it must be managed by a god. The Northmen called their sun-god Balder.

Balder was supposed to be a brother of Thor. He was said to be "so fair of face and so bright that he shines of himself." His home was "in the heavens," and was broad and splendid.

Balder, bright god of the sun.

Freya, Frigg and Hel

The Northmen believed in goddesses as well as gods. A goddess named Freya seems to have been liked best. She was the goddess of love. Frigg was another goddess, the wife of Odin. As we study the olden stories, we find that the same tales were sometimes told of both Frigg and Freya. Our word "Friday" was once "Freya's day."

Hel in her gloomy kingdom, with a vicious dog beside her. At the right you can dimly see suffering spirits. This picture was made by a German artist of modern times.

The word "hell" often appears in the Bible, which was mainly written down by men of Jewish blood. Strangely enough, the Jews never spoke of "hell," but used "sheol" or "gehenna" instead. We owe the word "hell" to a Norse goddess who was named Hellia or Hel. She put her cold cruel fingers on every spirit which did not go to the Home of Heroes (the place where warriors killed in battle were supposed to go). From time to time, it was said, she rode about the country on a three-legged horse. Her business was to gather the dead. Sometimes she rode in a wagon instead of on horseback.

Hel's dwelling was deep in the ground. It was very dark and spirits had a gloomy time. This evil goddess was always on the lookout for more souls to put in her black pit.

The father of Hel was Loki the fire-god. He was fair of face but mean of heart, and often brought sorrow to gods and men.

How Thor Obtained His Hammer

The Northmen believed in elves and dwarfs as well as in giants and gods. The elves were supposed to be very small, and to dwell in caves and other secret places under the earth. Some elves were good, others bad.

Elves enter an old story about Loki and Thor. Thor had a lovely wife with long golden hair. Her name was Sif. One day, while she slept, Loki cut off her hair. When Thor learned what had happened, he was enraged, and felt sure that Loki had played the trick. When the fire god was caught, he admitted the deed, but promised to put the hair back on the head of the goddess.

The truth was that Loki did not have the hair any longer; but he went to some of his elf friends and asked them to make some hair like Sif's. They set to work and spun long strands of finest gold, which looked like silken hair. Taking these strands to heaven, Loki placed them on Sif's head.

The elves also made for Loki a spear which went straight to the mark, no matter how poorly thrown. He gave this spear to Odin, and then began to brag that his elves were the most clever in the world. A dwarf named Brock happened to be nearby, and shouted:

"I'll bet my head against yours that my brother and I can make better gifts."

Loki took the bet. Brock went and brought back three marvelous gifts. One was a hammer for Thor which could be used to make thunder. The gods knew that the hammer would make a good weapon against the giants and decided in favor of Brock.

Loki did not want to pay the bet, so he ran away. Thor caught him, but Loki grinned and said to Brock:

"All right, you can have my head but not a bit of my neck."

The dwarf was outwitted. The best he could do was to sew Loki's

lips together. He did so, but the crafty god soon cut the thread and was able to speak again.

When Thor Lost His Hammer

During winter, the Northmen did not hear thunder. To explain the fact, they said that Thor had lost his hammer, and made up this story to explain:

One day Thor found that his hammer was gone. Loki now performed a useful deed. He suspected that the hammer had been stolen, and made a trip to the home of a giant called Thrim.

"How is everything in heaven?" asked the giant, grinning.

"Not very well," replied Loki. "Thor has lost his hammer. Do you know where it is?"

"I ought to know! I have myself buried it eight miles deep in the earth. I won't give it back unless I get the lovely Freya for a bride."

Returning to the home of the gods, Loki gave the message. Everyone hated the idea of giving up Freya, but they were in fear. If Thor did not get his hammer back, he could not guard them against the giants.

The goddess was asked if she would become the giant's wife. When she heard the question, her eyes flashed fire.

"Never!" she cried.

The only thing left to do was to play a trick on old Thrim. Heimdal, the wise god, said that Thor ought to dress up like Freya, go to the giant's home, and get his hammer back.

Thor feared that everyone would make fun of him, but at last agreed to do it. Loki dressed up like a woman, too, and went with him as his maid. Thor wore a heavy veil.

When Thrim saw the "goddess" he was tickled, and asked her to sit down for the marriage feast. Thrim watched his bride, and was amazed by the way she ate. Eight large salmon and a whole ox were

not enough for her. She also made away with all the cakes put on the table for the women, and drank two barrels of beer!

"What's all this!" cried the giant. "She eats more than any bride I ever heard of, and surely no woman ever drank so much beer!"

"Oh, that's all right," said Loki. "She has been excited about this wedding. She hasn't had a bit to eat or a drop to drink for a week."

Thrim was satisfied and went back to his drinking. Soon his brain

Thor and Loki, in women's clothes, on their way to the giant's home. (From "Asgard and the Gods.")

was all muddled up, and he told a servant to fetch Thor's hammer. After a while, the servant returned and laid the hammer on the bride's lap. Thor jumped to his feet, tore off his veil, and held his hammer aloft. Lightning flashed and thunder roared. Thrim was knocked over, along with his servants. Fire destroyed the dwelling.

In triumph Thor and Loki went back to heaven with the mighty hammer.

Freya Wins Back Her Husband

The goddess Freya (said a Norse story) once fell in love with a handsome youth named Odur, who was part-god and part-man. Odur admired the goddess, and gave back love for love. They were married, and all through the summer were as happy together as could be. Then came the beginning of autumn, and Odur left home for a distant land.

Seeing that he had gone, poor Freya wept. All the world now seemed gloomy to her. In fact, the earth *did* begin to look bare and dreary. The leaves fell from the trees, flowers lost their bloom, chill winds came down from the north.

The goddess continued to weep, and things became worse and worse. Snow fell. The chill winds became bitter blasts.

Freya was supposed sometimes to visit battlefields. Cats were "sacred" to her, and two are pictured here.

At last Freya said that she would stand it no longer. Leaving her palace in heaven, she set out to find her mate. Far and wide she searched, and then her eyes beheld him. Of all the days in her life, none had been so joyous as this one—for Odur clasped her in his arms and said that he would go back with her. As they journeyed northward, the birds began to sing again, the flowers blossomed, and the winds became gentle and warm.

This story shows one way the Northmen explained winter and summer.

Loki Brings Death to Balder

One day, the gods were told that Balder, the sun-god, would be killed. They shivered at the thought, for what could they do if

he died and the sun left the sky? His mother, Frigg, was most fearful of all. She decided to journey over the earth, and make everything promise to be good to her son.

Through field and forest, over hill and valley she went. Flowers, trees, metals, stones—all were glad to make the promise. Only one thing did she miss—a bit of mistletoe, and she did not suppose that could do any harm.

Loki, the fire god, had now become mean through and through. He hated Balder, and wanted to end his life. Making himself look like an old woman, he went to see Frigg.

"You made everything promise to treat Balder well, didn't you?" he asked.

"Yes," she replied, "all except a tiny piece of mistletoe on the oak tree just outside heaven."

Loki had learned what he wanted to learn, and went to the oak tree. He cast a spell over the mistletoe and it grew to be long and strong. Stripping off the leaves, the wicked fellow made a spear and carried it to the home of the gods. There everyone was having a good time. Balder was standing at the center of a ring, and the gods were throwing sticks and stones and spears at him. Nothing even touched him, because of the promises made to Frigg.

Loki saw Hoder, a blind god, outside the circle.

"Why aren't you taking part in this fun?" asked Loki.

"Because I have nothing to throw," was the reply.

"Here is something," said Loki, handing him the spear. "I'll show you how to throw it."

Hoder took the spear and, with Loki's help, hurled it straight at Balder. The god fell wounded and in a moment died. His spirit went to the realm of the goddess Hel.

The Gods Punish Loki

"Who has done this dreadful deed?" asked the gods when they saw Balder lying dead.

"Hoder," someone said, "I saw him cast the spear."

All turned angry eyes upon the god of darkness, and he was doomed to death. Loki slipped away.

By and by, Ogir, an ocean ruler, invited the gods to a feast in his

Loki bound to rocks, with his wife trying to save him from the serpent's poison. No matter how bad he may have been, I think this picture will make us all pity him.

palace. Loki was not asked to come, but he wanted some of the good things to eat, and came anyway.

The keeper of the door saw Loki and exclaimed:

"You are not invited here. Go somewhere else."

Loki became hot with anger, and struck the keeper dead. The gods rushed to the spot and were filled with horror because there had been murder in a sacred place. Loki ran away, but soon came back. Rushing into the banquet hall, he cried:

"Odin! You once swore never to attend a feast unless I was also asked to be a guest."

"It is true," replied Odin, and Loki was allowed to sit down and eat. Then Loki grew bold. He began to say mean things about the gods, some true, some false. At last he started to taunt Frigg. The goddess became furious and cried out:

"Oh, I wish my son Balder were here to silence your ugly tongue!"

"Ah, ha!" shouted Loki. "I'll tell you something! I was the one who gave the mistletoe spear to Hoder!"

All voices were hushed, and Loki began to fear Thor's hammer. Running to the door, he plunged into the ocean—a salmon!

The gods caught him in a net, and he changed himself back to his own form. He was bound between rocks, and a serpent above let fall drops of poison. The venom would all have lighted upon him had it not been for his wife. She was the one person in the world who cared for him still. As the drops fell, she caught them in a bowl. When the bowl became full, she had to empty it and a little poison would fall upon Loki before she could put it in place again. That would make him squirm and tug at his chains, causing an earthquake.

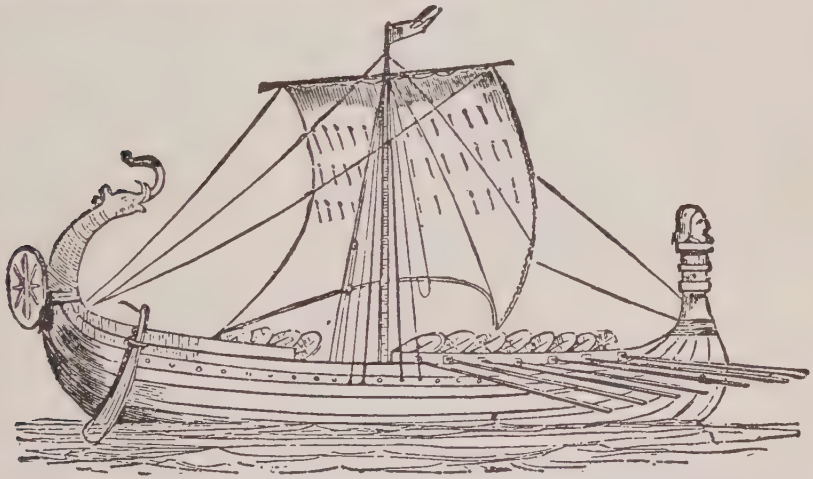
Some Northmen believed that the day would come when Loki would break loose. They thought that he would join the giants in a battle against the gods and that all would be destroyed: that "heaven and earth" would be burned to nothing.

CHAPTER XXIX

ADVENTURES OF THE NORTHMEN

The Northmen were fond of the sea. Many of them earned their living by fishing. After a time, they began to venture away from their native land. Norse boats full of sturdy fellows were sailed or rowed to far places.

One of the countries Northmen visited was Iceland. They liked that island and many of them settled down. Much of what we know about the Northmen was written by Iceland settlers.



Northmen who spent much of their time sailing and rowing over the sea are often spoken of as Vikings. This picture will give an idea of the appearance of their boats.

Other Northmen crossed the Baltic Sea and entered Russia. For a long time, the kings of Russia were descended from these men from Norway, Sweden and Denmark.

One bit of old Northman writing is as follows:

"The heroes from the north are well cared for. They cast dice and have plenty of money and good swords. They are glad when they have hope of

battle. They will leap up and ply their oars in hot haste, snapping the oar-thongs and churning the water.

"Their ships have grinning heads and carved beaks. They are filled with warriors with white shields."

A Norse ship is pictured.

When they came to a new country, the Northmen were in the habit of rowing up rivers. They would land their boats on islands. When they saw a good chance, they would attack a nearby village or city. Sometimes they would kidnap a king or noble and hold him for ransom. In one case they kidnaped a Christian Church official and held him until they were paid many pounds of gold.

At another time, seven hundred Norse ships made an attack on Paris. You may remember that Paris was built on an island in the Seine River. The Northmen could not capture the city by attack, so they tried to starve it out. This lasted for about a year.

The king of the Franks was then Charles the Fat. He became tired of having the Northmen around Paris and asked them whether they would go away if he gave them a large sum of money. They agreed, got the money, and left the city in peace.

King Canute and King Olaf

Bands of Northmen invaded Ireland. Some of them settled on the island, and to this day we find families there with such names as Hanson, Jansen and Thorkelson.

England was even more popular with the Northmen. It was larger and easier to reach. The Anglo-Saxon tribes had been in England three hundred years when the Northmen began to come.

The Anglo-Saxons called the invaders "Danes," because they came mainly from Denmark. For three centuries there were battles to decide who should rule the island. The Anglo-Saxons (or "English") fought stubbornly, but the Danes gained more and more land. London was one of the last places to hold out against the fighters from the north.

The first Northman to become ruler of England was named Canute. He is sometimes called "Canute, the Great," because he held power over so much land. He had Denmark before he came to England. He also laid claim to the throne of Norway.

The king of Norway at that time was Olaf, "the Stout." Canute sent messengers to him.

"You must either give up your throne," said the messengers, "or else admit that Canute is your lord and master."

Olaf became angry.

"There is no end to the greed of this man Canute," he cried. "Denmark and England are not enough for him. He wants Norway, too! Does he want to rule all the northern lands, or to eat alone all the cabbages in England? He is more likely to do that than to get me to be his under-man."

The messengers gave this message to Canute, who replied:

"King Olaf is mistaken if he thinks I want to eat all the cabbages in England. He will soon see that I have something besides cabbage under my ribs."

Canute made good his threat. He won power over Norway and Olaf lost the throne.

Eric the Red and His Son, Leif

The first white men to land on American shores seem to have been Northmen led by Leif Ericson. They reached the American coast about the year 1000. The records of Ericson's visit to America were not written down until long after the event is believed to have occurred. The Northmen of Iceland remembered the event only through words repeated from father to son, and from son to grandson. Then, at last, the words were put in writing. Careful study of what was finally written makes it seem safe to believe that Ericson landed on the American shore more than nine hundred years ago.

The father of Leif Ericson was a bold sailor, known as "Eric the

Red." After getting into trouble while living in Norway, Eric the Red ran away and settled in Iceland (where other Northmen were living). Before many years had passed, he made a trip to the west and reached the coast of a strange country. It was an island, but Eric did not learn the fact. He simply looked over the land a bit and returned to Iceland.

"I have found a great country to the west," he told his friends. "It is such a fine place that I shall call it Greenland. Let's get some ships together and go over and start a colony."

The Northmen were always ready for new adventures. They listened to Eric the Red and thought that they might enjoy life in the land he described. Twenty-five ships started out, but only fourteen reached Greenland. We do not know what happened to the others—perhaps they were lost in a storm.

Among those who reached Greenland in safety was Eric's son, Leif. He was about fifteen years old at the time, and the sea voyage must have been exciting. The Norse ships were long open boats. They always had a sail, but oars were used as well. The longest one we know about was one hundred and sixty feet from stem to stern. It was large enough to carry cattle and grain, besides sixty or seventy persons.

Leif lived in the Greenland colony until he was about twenty-four years old. Then he made a trip to Norway.

The king of Norway had decided to be a Christian, instead of praying to Thor, the god of thunder, or to Odin, the god of winds. The old record says that the king talked to Leif and asked him to go back to Greenland and tell the people to stop praying to the old Norse gods, and to worship Christ instead.

How Ericson Reached America

Leif Ericson bade the king good-by, and left Norway. He told his sailors to steer for Greenland. The old record says that they began their journey across the northern sea in the year 1000. Sometimes

the wind filled the sail, and carried them ahead; but when it was calm, they put out their oars and rowed.

After being on the water for some weeks, the ship was struck by a storm and was blown out of its course. Without a compass, and with a dark sky at night, the sailors had a hard time telling where they were going.

The record does not tell us how long Ericson and his men were on the sea. It was doubtless several months, and even the hardy Norsemen must have become tired of the cold waters.

At last land was sighted. It was not Greenland, but the coast of an unknown country. Ericson gave orders for the men at the helm to steer toward the shore. Before long they were on solid ground and were looking around to see what things were like. So far as we know, they did not see people anywhere. They were most impressed by what they saw growing.

"Self-sown wheat and grapes" were seen, according to the old Norse story. The "self-sown" wheat was very likely maize or Indian corn. It may have been growing wild, or it may have been planted by people whom the Norsemen did not see.

Grape vines were growing in so many places that the land was called "Vineland" or "Vinland."

We cannot say just where Ericson landed; but there is little doubt that it was somewhere on the coast of North America. Most likely it was Nova Scotia, though it may have been in New England.

After staying a short while, Ericson and his men left Vinland and made their way to Greenland, where they told people of the land to the west.

Trying to Settle in "Vinland"

Ericson told his friends about Vinland, but it seems that he did not care to return himself. Other Northmen continued the work he had begun.

Three boats were made ready, and were boarded by about two

hundred men and a few women. The leader was named Karlsefni. He wanted to start a colony in Vinland.

Leaving Greenland, the ships fought their way southward through the waves of the North Atlantic. Before many days had passed, they came to the coast of a country which they called Helluland, meaning Flat Stone Land. That was probably Labrador.

Two days later, they reached a coast farther to the south, believed to have been the island of Newfoundland, and spent a winter there.

When mild weather returned, they set out and sailed until they thought they had found Vinland. The Norse account says that they settled on the shore of a river which "flowed from a lake into the sea." We cannot say where that was, but it may have been on the side of a stream in Nova Scotia.

If you like to look at maps, you may have an interesting time tracing the probable route of these Northmen.

About two weeks after landing, the settlers saw canoes coming across the water. They were made of skins and were filled with natives of Vinland—men with "dark faces, ugly hair, great eyes and broad cheeks."

The natives were either Indians or Eskimos. They looked at the white men, then paddled back. Next spring they returned and did some trading; but they took fright at a bull kept by the Northmen and ran away. Three weeks later they came back to fight. Two Northmen were killed, but the natives were driven off.

After the battle, the colonists seem to have lost heart. They left their little village, and tried to settle at another spot; but without success. They then sailed for Greenland, reaching it three years after they had left.

Other Northmen visited Vinland in later times but we have little record of their adventures. The time was not ripe for America to be settled by people from Europe.

CHAPTER XXX

DUKE WILLIAM CONQUERS ENGLAND

Before Leif Ericson reached the coast of North America, other Northmen had gained a foothold in France. In their long, swift boats, they had rowed up French rivers and had put the people in terror.

Northmen liked the sunny land of the Franks. They settled in different spots and could not be driven away. By and by, a French king called Charles the Simple, decided to give them some land. He gave the land to Rollo, a leader of the newcomers.

Rollo was a bold, energetic fellow. He was said to be so big no horse could carry him, but that must have been putting it too strongly. In his home country, Rollo had been a pirate, and had been driven away. In Frankland he made things so hot that Charles the Simple was glad to buy peace with a large grant of land.

Before getting the land, however, Rollo was supposed to promise to be a good subject of the king.

All went well until Rollo was asked to kiss Charles' foot.

"No, by all the gods!" he cried. "I'll never kiss any man's foot!"

Things might have come to a standstill if another Northman had not stepped forward to do it. This man, as the story goes, was so clumsy that he upset the king from his seat, bringing much laughter from the Northmen who were watching.

In spite of this trouble, Rollo got the land. The Northmen settled there and were called "Normans," for short. Their country came to be known as Normandy.

Schools of the Normans

In France, the Normans learned how to be better civilized. They started a good many schools. Most of their schools were in monasteries (homes of monks).

The best teachers in Normandy were Italians, and most noted of these was Lanfranc. He started a school at a place called Bec. Students came there from many parts of France.

Many pupils of Lanfranc were made bishops or abbots. One pupil became the pope of Rome. Lanfranc used to sit up late in the night to correct the mistakes of his pupils. Some of the papers which he looked over have been saved way down to the present day.

The monks of that time did worth-while work in copying books. The abbots tried to encourage them. A Norman abbot told this story:

"There was a monk who made a great many errors in life. The only good thing he did was to copy a holy book. When he died, an angel checked off his sins. One sin was checked against each letter in the book. At the end there remained a single letter in the monk's favor. He was then admitted to heaven."

Such stories as that doubtless did much to save olden books for us. Among the works copied by Norman monks were Church Laws by St. Ives, the Natural History of Pliny, and the speeches of the Roman orator Cicero.

A Norman Wants to Rule England

The Normans took on many ways of the Franks or French. They began to speak the French language. Soon they were almost the same as other people in France; but there was one important difference. They kept the bold spirit of the Northmen and were more active than their neighbors.

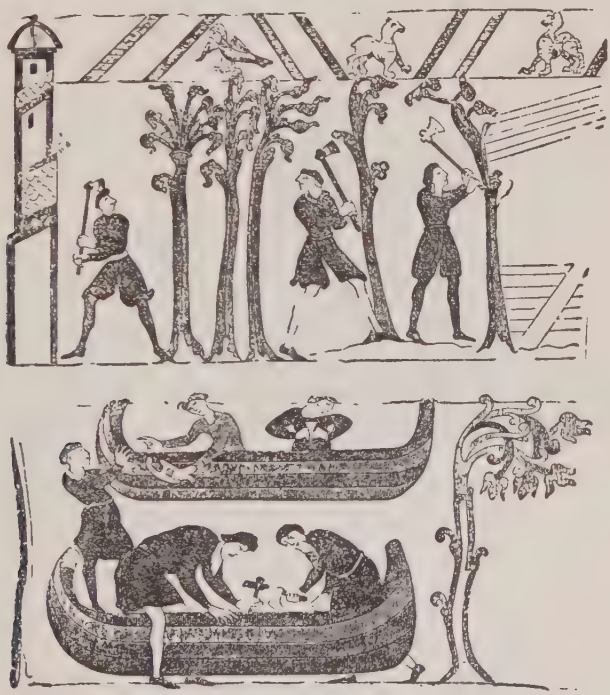
The ruler of the Normans was called the duke. One duke was named Robert. He was a wild fellow, and people spoke of him as Robert the Devil. By and by he decided to go to Jerusalem as a pilgrim. He thought that might make up for his sins.

Robert died on the journey. The next ruler in line was his son, William. The mother of William was the daughter of a tanner.

William proved to be full of energy. When only twenty years old, he led an army to help the French king put down a rebellion.

One of his best friends was King Edward of England, who had been brought up in Normandy. When Edward died, William said that the throne of England had been promised to him.

The English nobles did not want to have a Norman for king. They wanted an Englishman at the head of the country. Since Edward had no child, it was decided to make an earl, named Harold, king.



Normans cutting trees and building boats, to make ready to cross the English Channel. This picture and others in the present chapter are taken from the Bayeux tapestry, a long strip of cloth woven with curious designs after England was conquered.

William told Harold not to accept the throne. Harold refused to obey, and let the crown be placed on his head. William called together hundreds of knights with their soldiers, and made ready for

war. Scores of boats were built to carry the army across the channel to England.

King Harold is Defeated

After spending months getting ready, Duke William set sail for England. The ship he was riding on was the swiftest in the fleet and got quite a distance ahead of all the other vessels. The duke looked to see how many were following him, but not a single sail was in sight. He sent a man up the mast to obtain a better view.

Two "ships" of Duke William sailing toward England. Notice how the steering was done.

"I can see no ship," the man reported.

William ordered his vessel to "lay to." The sailor went above and looked again.

"Now I see four masts," he cried.

A little while later "a whole sea of masts and sails" came into view.

Onward toward England they went. No soldiers barred their way as they landed, but an odd event happened. William tripped and almost fell as he stepped from his boat.

"A bad omen!" whispered someone near him.

"No!" cried William. "It is a good omen! Do you see this soil in my hand? It is a proof that I am to own all the land of England."

As he spoke, he opened his hand to show sand which he had picked up when he tripped. In those days, there was a custom of handing soil to a person who bought land. The duke was thinking of that custom when he spoke.

King Harold had been busy in the north of England fighting an army led by his brother. Now he rushed southward to fight against the Normans.

For some reason, William wanted to keep from having a battle. He sent a messenger to Harold, with the words:

"Let us not have bloodshed. Let us take our quarrel to the pope. He will decide which of us should be ruler of England."

Harold thought that the pope was on the side of the Normans.

"No," he replied, "the pope shall not be judge in this quarrel."

Then he was asked:

"Will you fight William hand to hand, man to man? The duke is willing to let that decide who shall be king."

"No," answered Harold, "I won't fight in such a combat, either."

There seemed to be nothing left for William to do but to start a

A scene at the Battle of Hastings, as pictured on the Bayeux tapestry.

battle. It came "with rivers of blood," and is known in history as the Battle of Hastings, because it was fought six miles from the little city of Hastings.

The English were encamped on the top of a hill. The Normans fought their way up, but could not reach the summit. Then they tried a trick. They pretended to run away. The English followed. Suddenly, the Norman cavalry turned and charged. The surprised English were beaten.

It was an old trick, but it helped give England to the duke of Normandy. Harold was killed by an arrow during the battle.

After the battle, the Normans let friends of Harold look for his body. They searched long and hard among the dead, but could not find the slain king.

Then, as the story goes, Edith Swansneck came to the field. She had been Harold's sweetheart. Her spirit was heavy over his death, but she bravely joined the search. At last she spied a certain body and cried:

"That is he!"

William and his army marched to London, where he was crowned king of England. He is known in history as William the Conqueror.

William "Settles" in England

After the Conqueror was fairly well settled on the English throne, he began to give away land to the men who had helped him win power over the country. In order to keep this from looking like robbery, he made a clever excuse.

"Ever since the death of Edward," said William, "I have been the rightful king of England. All those who helped Harold were *traitors*. The law says that every traitor must lose his land—so their land is now mine. I have a perfect right to give it to whom I choose."

In this way, the lords of southern and eastern England lost almost all their land. Their places were taken by Norman barons. In some cases, the widow or daughter of an English lord was forced to marry a Norman.

All this made little difference to the common people who worked on the farms of England. All their lives they had worked for English masters. They had been kept in a cruel, cheerless condition. Norman masters were just about the same to them as English masters.

King William went back to Normandy for a visit. When he returned to England, he found some of the English lords in revolt.

After a few battles, he beat them down, and punished those who were not killed in the fighting.

There was one large valley in England which had caused a great deal of trouble to William. To show the people there "who was master," William marched into the valley and told his soldiers to burn everything in sight. Barns, houses, and fields of grain were laid waste. Even plows were tossed into the flames. For months afterwards the valley was a scene of starvation. A lesson of terror had been taught.

Two Norman soldiers on horseback. One of them holds a sword aloft but the blade is not shown.

King William was indeed a selfish man. He wanted to gain power and enjoy himself, no matter how much he hurt other people in doing so. One day he decided that his hunting-grounds were not large enough. Nearby was a large tract of land which he wanted to use. The soil was not very rich, but people were living in quite a number of spots. Here and there was a tiny village.

"Drive the people out of that land," William ordered.

His soldiers obeyed. Houses were burned, and many families were made homeless. Trees and shrubs grew up. The place was called the New Forest. By and by, deer grazed where people had once lived. William was glad, because this gave him a better chance to hunt.

The New Forest, however, was not to give lasting pleasure to the selfish king. One of his sons was killed there, and also a grandson. It is believed that they were slain in revenge, by men who had been driven from their homes.

A Greed for Gold

Besides his other bad points, King William was greedy for gold. Before he came to England, the English had been in the habit of pay-

ing money to the Danes to keep out of the country. This payment was called the Dane Gold. To raise it, special taxes had been collected.

Now there was no longer any danger from the Danes, but William still collected those taxes. He kept the money for himself.

Even with this extra money, the new king did not think he had enough. He decided that he would cause a big book to be made, and that it should contain a record of all the land and other property in England. Then he could do more taxing.

An English writer of that time says:

"He sent out his men to every shire in England. There was not a yard of land, or an ox, or a cow, or a pig, which was not written down."

This record was often called the Doomsday Book. It meant "doom" to money of earls and knights and abbots. To raise this money, the common people had to work harder on the land of their masters.

William did not care to spend all his time in England. You have heard of one trip he made back to France. Twenty years after he had become king, he went back again.

The ruler of France at that time was Philip the First. He jested about his visitor in a way which made him angry.

As a revenge, William told his men to burn the town of Nantes. That was his last cruel act. After the town was in ashes, he began to ride through it and look over the ruins. His horse, perhaps burned by a live ember, shied and hurled him against the pommel of his saddle. He was hurt so badly that he died.

William's body was to be buried on a piece of land in Normandy which he had given to a group of monks. After the grave was dug, a knight stepped forward and cried:

"I forbid you to bury such a robber here! He took this land away from my father."

The knight was paid for the land, and the burial took place.

CHAPTER XXXI

LIFE AMONG THE NOBLES

"Raise the drawbridge!"

This cry was heard every now and then at castles during the Middle Ages.

Sooner or later the lord of a castle was almost sure to have a dispute with a neighbor. Then he had the right to "go to war." When the enemy came to attack his castle, the drawbridge was raised.

No doubt you have a fairly good idea of a drawbridge, but the picture on the next page may give you a still better idea. It was made by an artist of the Middle Ages. The little bridge shown outside the castle lies over a black circle. The circle stands for a ditch.

The ditches around castles were called "moats." Sometimes they were partly filled with water. The idea of the moat was to keep the enemy from getting too close to the castle.

Of course people inside the castle wanted to go in and out during times of peace. For that reason, there was at least one drawbridge for every moat.

The picture shows a castle in use six hundred years ago. It is not easy to tell what that particular castle was built of; but the common materials used for castles at that time were stone and brick. Wooden castles were seldom built because the enemy could set them on fire.

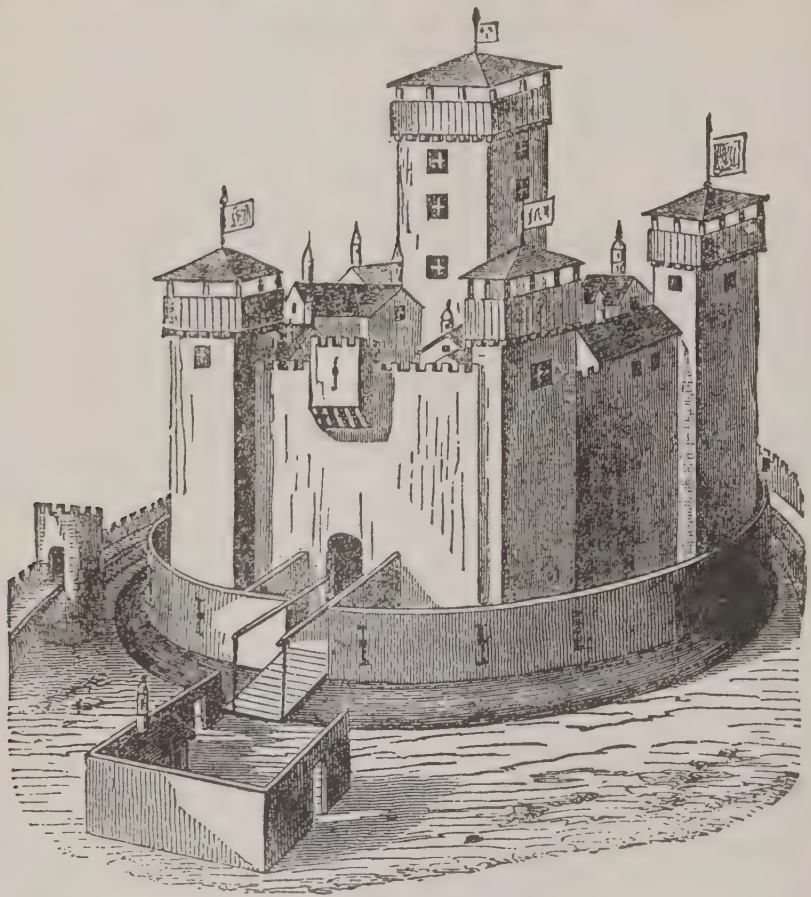
The lord of a castle had all sorts of "rights." He had tenants who lived on his land for miles around. Those tenants were spoken of as "serfs," and were little better than slaves. They were supposed to stay on the lord's land until they died.

You would never find a lord doing useful work on the soil. If you had asked him why not, he would have shouted something to this effect:

"Art thou crazy? Dost think I would dirty my hands with work?

I'm a lord and was born to have others wait on me! Get thee gone with thy foolish questions!"

The nobles lived on the fat of the land. The serfs toiled the whole day through, and had a hard time to get enough to live on.



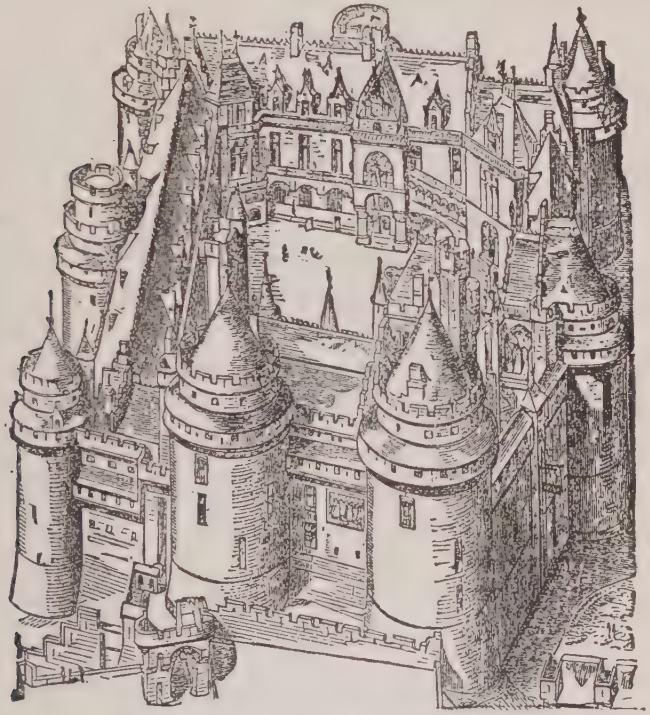
A Castle of the Middle Ages.

Castle Gardens and Pet Birds

Many castles had gardens filled with trees, shrubs and flowers. If a river flowed past the castle, the garden was placed as near as possible to its side.

For quiet enjoyment, lords and ladies were in the habit of going to their castle gardens. They liked to feast their eyes upon the flowers, and to listen to the singing of birds.

Ladies and their "maids of honor" often went to the gardens to make wreaths or garlands. These wreaths were usually worn by the ladies, but knights were sometimes honored by "crowns" of flowers.



Such castles as this were built during the later Middle Ages. Note how strong the towers look. Lords and ladies were glad to escape from behind the thick walls and go into their gardens for cool, pleasant rest.

One story of Sir Launcelot says that he was crowned with a garland of roses "every day except Friday and holy days."

Birds were often kept as pets. Some of them were placed in cages, but others were so tame that they would not fly away even if let free.

Among the pet birds were larks, magpies and parrots.

The lark was favored for his song. Magpies and parrots were kept because they could learn to talk.

Parrots were hard to get, and were not often seen in Europe. Magpies on the other hand were common. A story was told in those days about a magpie. It is so amusing that I shall tell it to you.

A certain lord, says the story, owned a fine eel. He was proud of it, and planned to serve it to his best friends at a feast. He kept it in a pond. One day he went away on a hunting trip, while his wife stayed at the castle.

Becoming hungry, the lady decided that she must have the eel to eat. A servant killed and cooked it, and the lady enjoyed a tasty meal. She did not, however, intend to let the lord know what had been done. When he came home, he asked where the eel was.

"Alas!" she replied. "It has been eaten by the pet otter."

The lord would have believed her, had not the magpie screamed:

"My lord! The eel was eaten by my lady!"

In revenge for what the magpie said, the lady plucked out all the feathers on top of its head.

After that, the story goes on to say, the magpie watched for bald-headed men. Whenever it saw one, it would say:

"Ah, you have been telling about the eel!"

This tale is funny, but we can be sure that it is not true. No magpie ever had sense enough to think up such things to say.

How Daughters were Married

Dukes, counts and other nobles of the Middle Ages claimed the right to give their daughters away in marriage. The young women were not supposed to have any choice about the matter.

The father of a damsel might say, any day:

"Helen, you are to marry the Baron Arthur," or "Mary, you shall wed the young Count Joseph."

The daughters were expected to bow to the father's will. In most cases, it seems that they did; but now and then, there was a slip in the

father's plans. His daughter would run away and marry a man she loved.

I am glad to say that some fathers were thoughtful enough to say to a suitor:

"You can marry my daughter, *if she is willing.*"

Before a marriage took place, there was a "betrothal." That was very much like the "engagement" of the present time, but it was more formal. It was a ceremony performed by a priest. In some cases, it came only a few days before the marriage itself. Usually, however, the betrothal took place a month ahead of the wedding day.

Most ladies of castles and palaces were in the habit of doing at least a little useful work. Spinning thread was a favorite occupation.

In the time of King Alfred, English women were called "the spindle half." The men were called "the spear half."

Married women were likely to spend much time with their children, and did not spin or weave a great deal. Maidens, on the other hand, were at the spinning wheel so much that they were called "spinsters."

Except when there were feasts or dances, people in castles went to bed at eight or nine o'clock. There were no electric or gas lights, and it was not much fun to read by dim oil lamps. So it was, "Early to bed and (sometimes) early to rise."

Weaving Cloth and Making Tapestries

Almost every woman knew how to weave cloth during the Middle Ages. The cloth was usually made of wool, cotton or linen. Now and then, silk was brought from the East, but only the very rich could afford to wear it.

One of our pictures shows a woman weaving thread into cloth. The machine she is using, is called a loom. She makes it go by pressing with her feet. She must be quick with her hands to keep the thread from getting tangled.

Another picture shows four women at work. The one with the shears is probably the mistress of the household. Notice the queer

shape of the shears. She is going to use them to cut up the large piece of cloth. The two young women at the right are spinning thread. Instead of spinning-wheels, they are using "distaffs." The distaff was simply a long stick, around which the fibers of flax or wool were wound. These fibers were then drawn out and spun into thread.

A woman working at a loom.

Weaving cloth was all very well, but I am sure that women often became tired of doing the same thing over and over again. The real pleasure with thread came in making tapestry. This was heavy cloth with pictures embroidered on it.

At first, tapestries were used only in churches. They were filled with images of Jesus, Mary, and the saints. Later, there was hardly a castle which did not have tapestries hanging along the walls.

When making tapestry for the castles, ladies embroidered images of galloping knights, hunters, and soldiers in battle.

Women of the Middle Ages spinning thread and handling cloth.

The most famous piece of tapestry ever made is called the "Bayeux tapestry." It is a strip of cloth about two hundred feet long. All along this great strip are attempts to picture William the Conqueror, his ships, his soldiers, and the battle with the English at Hastings. You have seen some of the tapestry designs in a previous chapter.

Kings and nobles were fond of golden color. They thought it looked rich. "Golden" thread was often used. Sometimes, 'tis said, damsels took strands of their own hair to use as thread. As you

may guess, that was when they were making something for their sweethearts.

Using Hawks to Catch Game

Hunting was a favorite sport of the nobles during the Middle Ages. Deer, rabbits and wild boars were chased with horse and hound, spear and arrow. Sometimes the women of a castle went out hunting with the men. Certain women could hurl a spear or shoot an arrow as well as almost any man.

Even more in favor with the women was the sport of "hawking." Trained hawks were used for this pastime. You probably know that

A hawking party, as shown by an artist of the Middle Ages.

hawks swoop down on other members of the bird family and kill them for food. These birds of prey were trained to fly up and catch other birds and then return with the "game" to the master or mistress.

Common people were not supposed to go hawking. The sport was reserved for knights and nobles, their wives, sons and daughters.

Baby hawks were given choice meats to eat, and were kept free

from dampness and cold. They were treated with more care than the children of the serfs.

It was a common sight to see a lord or lady carrying a hawk around, even when there was no sport in view. The bird's feet were held to the hand by means of small leather straps. Some people even carried their pets to church!

A hawking party is pictured.

A man, two women and a boy are looking for river game. The boy is running ahead to scare the water fowl into flight. A hawk is to be seen catching a bird which was too slow to get out of the way.

Hawks often had tiny silver bells placed around their legs. This made it possible to find them if they strayed from sight. When not in use, hawks sometimes had small hoods placed over their heads. These hoods kept them from being too restless.

Hawks are sometimes spoken of as "falcons."

Women and Rabbit Hunting

Wives of the nobles often went hunting without their husbands. Sometimes they went on horseback, sometimes on foot.

Women hunting rabbits.

Two pictures are shown which were taken from a hymn book used in those times. A hymn book is a queer place for such pictures, don't you think so?

In one picture, two women are hunting rabbits. One seems to be chasing the rabbits out of their holes with a club. The other stands with drawn bow, ready to shoot an arrow. Notice the loose dresses worn by both the huntresses.

The other picture seems to be a kind of cartoon. It makes fun of the lady, who is out hunting with a pet dog. One rabbit looks back as if to say to the dog:

"You poor little thing, do you think you could hurt me? Ha, ha!"

Ferrets were in common use for rabbit hunting, especially with

This sketch seems to have been a comic picture.

women. These little animals, with their sharp teeth ready to bite, would run into the holes and drive the rabbits out.

Ferrets were used by English priests and bishops for rabbit-hunting, as we know from a law made during the reign of King Richard the Second. The law said that clergymen must not hunt with ferrets unless they had a certain amount of land. Prison for a year, was the punishment if this law was broken.

Games in the Castles

Nobles were fond of gambling during the Middle Ages. They played for money, and if they lost all they had, they might even risk their clothing. Their robes were costly and were almost as good as money.

When men gamble, they often lose their sense of honesty. "Loaded" dice were widely used. One pedlar's song was:

"I sell them heavy, I sell them light,
Oh, buy my dice!"

Many games of cards were in use. People also cheated with these. The main way was to mark certain cards, or to have extra ones to slip into the hand.

Every once in a while, kings or bishops tried to put an end to

gambling with dice or cards. Their orders may have cut down the playing a trifle, but it was not stopped by any means.

A game of chess in a castle. The artist put only half the proper number of squares on the board. Through the open doorway, you can see a courtyard.

Greatest of all games was chess. We do not know just when this game was invented. It was probably first played in India. The people of Babylonia and Persia also knew the fun of chess-playing.

During the Middle Ages, there was hardly a castle in which chess was not played. Sometimes chess-players gambled, and kings and priests tried to stop the game by laws and rules. Their efforts were in vain.

Chess is perhaps the greatest indoor game ever invented. It is matching brain against brain. Once a person knows it well, he enjoys every moment he plays.

The French began to play chess more than a thousand years ago.

When French, English and German knights went to the Crusades, many of them took along sets of chess. When not fighting the Saracens, they were likely to be found playing chess in their tents. The Saracens, on their part, were just as fond of the game. Thus enemies played at the same thing at the same time.

Chess might be called a "game of war." Each side has two knights, two bishops, two castles, a king and a queen. The queen has more power than any other two pieces put together. She is a strong guard for the king, and does much to keep him from being cornered. On each side are eight pawns, or "foot-soldiers."

Ladies as well as their "noble" husbands whiled away their time playing chess in the castles during times of peace.

Dancing in the Middle Ages

During the Middle Ages, dancing was at the height of fashion. Some persons did hardly anything else. They danced "morning, noon and night." Most of the dances of those times were of a modest type. They were not like certain "jazz" steps of the present time.

One dance which was well liked was the round dance. The men and women formed in a circle, hand in hand. To the music of flute, drum or violin, they skipped around. First one person, then another sang a verse of a song. All joined in the chorus.

At weddings, the torch-dance was popular. The dancers divided

Dancers of the Middle Ages.

into couples, holding each other lightly by the hand. The men bore lighted torches. As they stepped about, they tried to blow out one another's torches.

Both men and women wore hats or caps while dancing. It was usual for knights to remove their armor before beginning to dance, but in some cases they kept on their coats of mail.

Dancing seems to have remained wholesome until "mask balls" were

started. After that, many persons forgot their dignity. They said to themselves: "We are disguised. Who will know what we do?"

They might have answered that they themselves would know.

At one mask ball, a half-insane king of France and four friends were dressed as "wild men." They wore only fuzzy, skin-tight garments. Everyone was anxious to know who they were. A duke went up to the four friends, who were chained together. He was careless and let his candle touch the "hair" on one of them. It caught fire. In the excitement which followed, all four were burned to death. The king was saved, but he was more insane than ever the rest of his life.

Our picture will give you a good idea of a simple dance of the Middle Ages—without masks.

A Poet Who Nearly Lost His Head

A quaint picture made during the Middle Ages shows a German count sitting beside his wife. The count holds a sword in one hand. The blade is still in its scabbard. Notice how the two are dressed. There is a crown on the count's head and he has fluffy hair. The countess has hair which falls far down over her shoulders.

That picture was drawn about six hundred years ago. The count was named Hermann, and his wife was called Sophie.

At the castle of this couple lived several poets. They sang their poems while they played on harps or other instruments. Among the poets arose a dispute as to which was the best and which was the worst.

To settle the quarrel, they decided to have a "tournament of poetry." They agreed that whoever was judged to be the worst poet should pay for it by giving up his head.

The poet who lost was named Heinrich. The man whose work it was to put persons to death, began to get his ax ready. The poor poet was unhappy (as we might expect)! He wished that he had never quarreled about who made the best poems.

If Heinrich had given up all hope, he would soon have been a dead man. As it was, he decided to appeal to the countess. Falling on his knees before her, he begged to be saved.

Countess Sophie seated beside Count Hermann.

Countess Sophie took pity on him and sent for a friend who knew human nature well. This friend talked with all the poets and patched up the quarrel.

Heinrich's life was saved, but we can be sure that he did not boast about his poems for a great while afterwards.

CHAPTER XXXII

THE CHURCH DURING THE MIDDLE AGES

Twelve hundred years ago, there were men in Europe called "anchorites." How do you suppose they happened to get such a queer name? It was because they stayed in one place for years and years at a time. They seemed almost to be *anchored* to the spots they chose.

Sometimes these men lived in huts beside churches. In other cases,

A knight visiting a hermit.

they went to deserts or forests, and lived by themselves. Those who went away from all other people are often spoken of as "hermits." They were likely to dwell in caves, as did people of the old Stone Age.

The hermits and anchorites often tortured themselves. They would

press iron chains into their flesh or hurt their bodies in other ways. This was done "in penance for sin."

Other men in the Middle Ages were called "monks." They did not live alone, but in groups. Their homes were spoken of as monasteries. Sometimes there were a dozen monks together, sometimes a hundred or more. The man at the head of each group of monks was called an abbot.

The monks did not get married. They spent much of their time praying in churches or chapels. An abbot of a place near Rome was called Benedict. He thought that the monks were spending too much time praying.

"Let them work," was his idea.

The monks over whom he ruled were set to work. Every week-day they had to do several hours of work in the fields or around the home.

People liked this plan. They were glad to see the monks helping to raise crops. For that reason, they gave a good deal of land to Benedict and the men who followed his rules.

Benedict gathered groups of monks in many parts of Europe. They were known as Benedictines, in his honor.

Friars in the Middle Ages

Other men in holy orders were the friars. You see four of them pictured. Notice that their heads are shaved on top. It was the custom for priests, monks and friars to have their heads treated in that way.

Four friars of the Middle Ages, showing differences in dress.

Friars did not stay in one place very long. They were traveling around Europe almost all the while. Usually they traveled on foot; but if they were lucky they might ride on a donkey or a horse. As they walked or rode through the green country, we can imagine that they had pleasant sights to see. Sometimes friars visited families

Dominic and Francis.

in the country, too far from any town to go to church.

There were four kinds or "orders" of friars. One was started by a Spaniard named Dominic, another by an Italian named Francis. These two men met in Rome. Each had almost the same idea. The pope asked them to join together in starting an order of friars but each wanted to have one himself. The pope gave permission, and both Francis and Dominic succeeded.

Writings of the Middle Ages lead us to believe that some friars did not lead very good lives, but others were as sincere and helpful as could be wished.

People gave the friars money, food and shelter.

Priests, Prayers and Chapels

A picture taken from a hand-written book of the Middle Ages shows a scene in a church. A woman is kneeling before a priest, confessing her sins.

The priest is seated in a round-backed chair, and is wearing a black hoodlike headdress. His body is clothed in a robe which looks a good deal like the "togas" Romans used to wear.

From early times in the Christian church, it was believed that souls of the dead could be helped by prayers of the living. The usual time for such prayers to be said was at mass (the morning church service). The priest was asked to say mass for one soul at one time, for another soul at another time.

During the Middle Ages, it came to be a custom for men and women to state in their wills that they wanted priests to say mass for their souls. Sometimes the person was satisfied with one or two masses, but often he asked for many more. Certain wills provided that a

priest should be engaged to say mass each day for months after the person's death. As many as five thousand masses were sometimes ordered for a single soul.

Almost every important noble in western Europe had a chapel of his own, either in his castle or right next to it. Some chapels had as many as four or five altars. One English earl kept up a chapel with eleven priests and sixteen members of the choir. The lords were not always selfish about their chapels. They often let persons living near the castle come in and attend mass.

A woman confessing her sins, as pictured by an artist of the Middle Ages.

Rules for Christian Priests

"When the blind lead the blind, they both fall into the ditch."

Those words were in a book written to give priests advice and to tell them how to act. There were many such books during the Middle Ages.

What do you think was meant by the sentence about "the blind"? It was a warning. Priests should know themselves before they tried to teach, the book declared. There were other hints and rules for priests. A priest, it was said, must never tell a lie. He must not shoot a bow and arrow, or sleep too late in the morning. His clothes must not be cut like those of other men. No beard should appear upon his face.

There were also rules for persons who went to church. They were not to laugh or talk aloud while in church. If one of them leaned his head against a pillar or lay back against the wall, the priest was likely to speak to him sharply.

Satan's Struggle for Souls

An evil spirit called "Satan" or "the devil" is often spoken of in the Bible. Perhaps you remember how Satan is said to have tempted both Job and Jesus.

This picture is taken from a hymn-book used during the Middle Ages. It shows a struggle for a soul between an angel and the devil.

Artists of the Middle Ages tried many times to "show what the devil looked like." Sometimes they gave him the appearance of a pig. Always he was made to look ugly. It was common for him to be pictured as having hoofs and horns, not to speak of a forked tail. His face showed cunning and deceit.

Sketches of Satan were often made in prayer-books and hymn-books. Sculptors cut images of "the fight for souls" on the walls of churches. A favorite scene was a struggle between an angel and the ruler of the lower world, like the one pictured. You will notice that a soul seems to be climbing a mountain peak, or perhaps the uppermost tip of a cloud. An angel above is stretching out its arms to grasp the soul. Satan, on his part, is trying to use a three-pronged fork to get another subject for his kingdom. It looks very much like an even battle.

Two Creeds of Southern France

For almost seven hundred years after the first church council, disputes were kept down. There were some here and there, but they were like small ripples on the water.

Then, in southern France, the ripples began to turn into waves. Thousands of persons cast off old ideas and started new Christian creeds. One of the most famous creeds in southern France was that of the Cathars. Let us listen to a Cathar while he explains his belief:

"Other Christians say that Lucifer and the bad angels were cast out of heaven into hell. That is true, in a way, but there is a mistake about hell. The only hell is on earth. The spirits of the bad angels were cast *to earth*. They took on the bodies of human beings. The angel bodies were left in heaven. The object of life is to get back the angel bodies."

Another creed was that of the Waldenses. If you had been living then, one of them might have told you this:

"Every man has the right to be a priest. There should be no set of men in holy orders. We all have the right to perform the sacraments. All of us should read the Bible for ourselves, and tell what it means."

I mention these new creeds to show that there were differences of opinion in the Christian church during the Middle Ages. The persons who did not hold closely to the older beliefs were known as "heretics." They did not cause a great deal of trouble then, but other heretics were to help bring about some of the most bloody quarrels in Europe's history.

The Pope Quarrels with the Emperor

Pope Gregory the Seventh lived at the same time as William the Conqueror. William ruled over church affairs in England with a firm hand, but the pope did not interfere.

The man Gregory wanted to keep out of church affairs was the German king—Henry the Fourth, who ruled Germany and wanted to rule Italy as well. Henry was a man of low moral type. To get money for himself, he sold the office of bishop to worthless men. The

pope declared that the king had no right to name bishops or to give them the symbols of office—a ring and a shepherd's staff. He sent him this order:

"Come to Rome and answer the charges made against you."

Henry was enraged. He called together a council of bishops in Worms, Germany. They voted that the pope should quit his office. The pope was too strong a man to obey. He remained in office and said:

"Henry is cut off from the church. He cannot go to confession, attend mass, or do anything else that takes the help of a priest. Besides this, he is ordered off his throne. His subjects do not need to obey him any more. In fact, they *must not* obey him."

A bishop of the Middle Ages.

This was a heavy blow for the emperor. Many of his subjects disliked him, and were glad to follow the pope's order. Even the bishops began to leave Henry's side.

The emperor lacked courage. Fearing that he would really lose his throne, he went one wintry day to the castle of the Countess Matilda at Canossa, in northern Italy. The pope was there on a visit.

Henry was not allowed to enter the castle for three days. There is a story that he "stood barefooted in the snow" while waiting to get inside, but that story has no good proof. It is more likely that King Henry simply called at the castle on each of three days, and was turned away. On the fourth day, the pope let him come in. Henry's acts were forgiven, but that did not end the quarrel. The pope said that another meeting would have to be held.

Henry Sets Up a New Pope

King Henry had thought that he would gain good will by going to the pope and asking forgiveness. It seemed to work the other way around. Even some of those who had stayed on his side, lost faith in him. They thought that he had proved too weak.

Henry, however, still had much energy. He saw that he had made a mistake and broke off the agreement he had made with Pope Gregory.

The nobles in the north of Germany named another man as king. Henry marched there with his army and beat down the rebellion. Then he marched into Italy. Very few persons dared to stand against him, and he became the master of Italy as well as Germany. Taking advantage of his power, he called a church council. A new pope was chosen. Gregory was driven out of Rome and died in exile at Salerno.

This did not end the quarrel about who should name the bishops. Henry's son came to the throne and took the same position as his father, while another pope had the same ideas as Gregory. For many years the quarrel went on. Then a compromise was made.

The pope was to have the right to give bishops the ring and shepherd's staff, but the emperor was to give bishops their lands and houses. This meant that the pope had the right to do the naming; but the bishops were to look upon the emperor as their lord.

The same kind of agreement was made between the pope and the king of England.

In Spain, a different agreement was made. Much of the land there was still in the hands of the Moors, but some of it was ruled by "the king of Castile." The pope gave him the right to name bishops, and the Christian rulers of Spain held that right for hundreds of years afterwards.

CHAPTER XXXIII

KNIGHTS OF THE MIDDLE AGES

When a lord or baron had more than one son, there was a task before him to decide what to do with his land after he died. Sometimes he gave it all to his eldest son, and the rest of his sons had to shift for themselves.

In other cases, the land was divided among the sons. This meant that estates became much split up. Often the amount of land a son received was very small indeed.

So it happened that many sons of nobles were left with little or no

Pages and squires riding before their masters.

land. The fathers knew that this would happen and tried to keep their sons from "sinking into the ranks of the common people." The chief thing they did was to have the boys learn to be knights.

Until the age of seven, the son of a knight or noble was under the care of his mother. Then began his training for knighthood. If he was the son of a rich noble, he might be kept in his father's castle. Otherwise he was likely to be sent away to some larger castle.

Until he was fourteen, the lad served as page for the "lord and lady." It was common for him to wait on table, or to go hunting with the lord and hold extra spears or arrows in readiness for his master.

The page was taught a little about reading, perhaps by a priest who lived in the castle. He sometimes learned to play the harp, and sang romantic songs as he played. After he was fourteen, he served as a squire. His chief duties were to look after his lord's horses and

Squires enjoying themselves with tilting toys.

armor. He combed the steeds almost every morning, and looked to see that their shoes were on tight. Another job was to polish the lord's helmet and shield, and to see that his coat of mail did not get rusty.

Sometimes the squire would go into the ballroom. He had duties even there, but they were not unpleasant. He must have enjoyed

watching the dancing and listening to the music. No doubt he drank in eagerly snatches of the talk always going on at the parties.

Toy knights were sometimes carved from wood. Squires would sit down at a table during their free time, and push the horses and men together. The leveled lances would strike the knights. If both lances were broken, it was a tie. If one lance was broken, the other not, victory was awarded to one of the squires. No doubt he felt himself quite a "cock of the walk."

Most fun of all came when the squire went with his master in search of adventure. The squire was not allowed to wear armor. His work was to ride near the lord carrying lances, the shield, and perhaps the helmet of the lord. The lord did not want to be weighted down by those things. His armor was plenty for him to carry until it came time for a fight. Then the squire made haste to supply him with his shield, helmet and a lance.

After serving in this manner until he was twenty or twenty-one, the squire was ready to become a knight.

How Knights Were "Dubbed"

When a squire was made a knight, it was one of the great days of his life. In early times in England, it was the custom for priests to "dub" a man a knight. After the Normans came, that custom ceased. The young man was "dubbed" by a noble or knight. Before he was given the badge of knighthood, he was supposed to spend several days in praying.

Then he took a bath.

We cannot say just how common baths were in castles during the Middle Ages. Very likely they were few and far between. The bath I speak of, was a sign that the youth was "made pure." Then he was clothed in a white robe to show his purity. In certain cases, red and black garments were added to his attire. These colors showed "willingness to give blood for honor or the church," and "defiance of death."

Finally, the young fellow received a whack on the neck with a bare fist, or was tapped on the shoulder with a sword.

A knight of the Middle Ages.

"In the name of God, St. Michael and St. George, I dub thee knight," were the words spoken by the man who did the knighting.

The new-made knight had now to seek his fortune. If he was poor, he would probably enter the service of the lord who had trained him. The nobles were always glad to get knights to help them in war. They paid the knights, and gave them a chance to do "deeds of valor." The "deeds of valor" were usually cutting some enemy to pieces on the field of battle. The lord was engaged in war with other lords a good deal of the time. The fighting was usually about land.

One of our pictures shows a knight half-kneeling in front of his horse. He is well decorated with crosses and we can guess that he has just taken a trip toward the Holy Land, or else is about to set out for that goal. Notice the hood on his head. It was made of small metal rings, linked together. The same kind of metal "cloth" covers his arms, neck, body, and part of his legs. His feet and the lower parts of his legs were covered with somewhat larger rings. Spear, sword and spurs made up the rest of his rigging.

A squire.

Another picture shows a squire leaning on his horse's back. This squire seems to be sunk in thought; or perhaps he is stupid and is leaning there only because he has nothing else to do. He looks to be older than twenty-one. Perhaps he is not training to be a knight but is simply a servant. Many knights had such squires—rude fellows who did not mind remaining personal servants.

When Fighting was in Fashion

Knights seemed never to get tired of fighting. If no quarrel existed with their neighbors, they were likely to sally out of their castles and start one. In their fights, the knights would drive against one another with leveled lances. If both riders were knocked out of their seats, they would fight with swords or daggers. When one was struck down, wounded, the other would decide whether or not to put him to death.

The priests of the Christian church did not like all this fighting, and tried to make it less. Knights were forbidden to strike priests or women, peasants or traders. If they did so, they were doomed to be put out of the church. The knights thought that was a terrible thing, and many of them obeyed the rule.

Another rule of the church was that there must be no fighting on Sundays; certain other days of the week were later made peace days, as well as holy seasons such as Lent. Finally there were only eighty days in each year when knights were permitted to fight one another.

Of course the knights did not always keep the peace days. They were too wild a lot to obey even the church at all times. The best the priests could do was to put a stop to part of the trouble.

Castles of the nobles usually had springs or wells within their walls. Pigs and chickens were also common sights. Secret tunnels were built under the walls. If the "enemy" tried to starve those in the castle, a trip to a nearby farm could be made through the tunnel. Food obtained by this means often saved castles from having to give up.

Wandering Knights

For hundreds of years in Europe there were great numbers of knights who kept wandering from place to place. They knew of nothing better to do than to "search for adventure." People called them "knights-errant," meaning "wandering knights."

Such knights would usually set out alone or with a single squire. They would ride along narrow roads, some of which were little more than paths. In rainy weather, the knights must have become rather muddy when their horses galloped over puddles in the road. In fair weather, we can be sure that they had a rather pleasant time. Like the friars (who usually wandered on foot), the knights-errant could see many a charming sight — tree-covered hills, streams and rivers winding through valleys, high castles and tiny villages. Perhaps best of all, they could be sure of food and lodging at almost any castle they chose to enter. It was a law, not written but real, that a wandering knight should be cared for by other knights.

Knights in the green courtyard of a castle getting ready for a tilt. See how the artist pictured the people looking on from inside the castle!

Sometimes, however, the lord of a castle would demand a "price"

of any knight who came to enjoy the shelter of his roof and the good things of his table. The price was a "joust" or "tilt." In those days they had no baseball or football games to keep them excited. Life in the castles often grew dull. So when a lord saw a knight enter his yard, he was likely to say:

"Sir, let us match our strength with lances."

Then he would mount a horse and level his lance for the mock fight. The two would charge together with great force, but seldom with injury. Usually the only hurts were bruises when one or the other was knocked from his horse.

Sometimes a knight would take a station beside a road or near a bridge. He would challenge every knight who came along to "do combat." It was a custom in some parts for the knight who lost to give the other his shield. A strong and skillful fighter would get quite a collection of shields, as many as his squire could carry.

Besides adventure, there was another reason for all this "tom-foolery," as some would call it. The knight desired to have women admire him. He knew that fair dames and damsels liked men who did "deeds of daring." To get them to admire him, he went out to fight with all who came his way. On returning home, he would boast of the great things he had done. We can well believe that part of his boasting was about deeds which never happened.

Tournaments

From time to time, tournaments were held. These were meetings of knights from many places. They came together and held mock battles. One group of knights would charge against another group. Then there would be a lively contest to see which side could knock more of "the enemy" off their horses.

Tournaments were usually held in a field near the castle of a noble. Watching the knights you would be sure to find a number of ladies dressed in their best clothing.

Single combats would often be held at tournaments, before or after the group fighting. One knight would ride against another and try to knock him from his horse. Blunt spears were commonly used, and

A scene at a tournament as pictured by an artist of the Middle Ages.

there was seldom anyone badly hurt. The knight who won the most single combats, was given great honor. A crown might be placed upon his head by the noble's prettiest daughter.

CHAPTER XXXIV

PILGRIMS AND THE CRUSADES

Pilgrims at the Shrines of Saints

Walking, riding horseback, jogging along in carts, sailing over the sea—these were the ways people got from place to place during the Middle Ages.

One kind of person almost always walked—the pilgrim. Pilgrims were men or women who wanted to visit a sacred place. Palestine was the most important. It was often called the Holy Land, because Jesus spent his life there. Rome was another place the pilgrims liked to visit. They were always glad when they could see the pope and get him to give them his blessing.

A Pilgrim.

A great many persons in western Europe could not afford such long trips. They visited the "shrines" of saints. A shrine was a place where people went to pray. Sometimes the saint was buried at the spot. In other cases, he had lived near it. Often a spring was called holy because a saint had drunk some of its water. Many persons believed that they could be cured by going to a shrine and touching the bones of a saint, or by drinking the spring water.

Pilgrims were treated well by families who lived along the road. Seldom were they turned away when they asked for food. It is said

that many poor persons quit their homes and wandered around most of their lives as pilgrims. By so doing, they got food and shelter without any labor—except walking and talking.

The talking part was important. In those days there were no printing-presses in Europe. There were no newspapers like the ones of to-day. People had to gain their news from letters—or by talking with others. In *trade* for food, we might say, the pilgrims told the news of the places they had visited.

Quite often, the pilgrims made spending money by selling relics from the shrines. Such relics seem to have been sold on a wide scale near certain holy places. Pilgrims bought them and carried them away to sell to people who could not visit the spot.

Sometimes the relic was a piece of bone. Sometimes it was a hair or two, sometimes a rag said to have been cut from the saint's clothing.

Beginning of the Crusades

For a long time, Palestine was in the hands of the Arabs who treated pilgrims well. Then came bands of Turks from the east. They won power over Palestine and were not friendly to the pilgrims. Sometimes they robbed or killed them.

Another thing the Turks did was to put Constantinople in danger. The emperor sent word to the pope in Rome asking him to help.

The pope was Urban the Second. He called together a great assembly of knights and barons, and told them that the Turks were cruel to Christians. He said that they should go to the east with sword and spear, and conquer Jerusalem and Bethlehem.

Urban was a gifted speaker. Those who heard him were impressed, and shouted that they would do what he asked.

At the same time lived a man called Peter the Hermit. He heard about the Turks in Palestine and wanted them to be driven out. Going from city to city, from town to town, he talked to large crowds of Christians. He told them they should set out at once to defeat the Turks.

The appeals of Pope Urban and Peter the Hermit caught the attention of two kinds of people. The poor and the lowly had nothing to lose. Their lives were full of misery already. They welcomed the chance to go abroad. The knights, barons and dukes liked excitement. The chance to fight in a foreign land meant adventure for them. Besides, they were religious and wanted to do something for Christianity.

A "War of the Cross" was declared. It was called a Crusade.

Thousands of men and women started off with Peter the Hermit. They took with them neither money nor food.

"God will take care of us," they said.

This group marched along the valley of the Danube. Before Constantinople was reached, many persons had died from sickness or starvation. Others were killed by Turks in Asia Minor. A different group then started out. It was mainly made up of knights and nobles, with their fighting men, led by a duke named Godfrey. They took with them money, food and arms, and fought their way into the Holy Land. Winning control of Jerusalem, they set up what they termed a kingdom. Godfrey was chosen the first ruler.

The Christians Lose Jerusalem

It used to be the fashion to say that the Crusades were entirely caused by religion. Now we know that there were other reasons. Religion cannot be blamed for all the bloodshed those wars caused.

One of the other reasons was a desire for new homes. Travelers and pilgrims had spoken of "the riches of the East" which led many Crusaders on toward Palestine. This was especially true of the younger sons of nobles. Usually they obtained little land when their fathers died. They now saw a chance to get land in the Crusades.

It is a pity to have to say that the Crusaders often acted in a cruel manner. When they captured Jerusalem they killed great numbers of prisoners.

News of the Christian victory brought more and more pilgrims, from Europe. They settled upon quite a stretch of land.

Of course the Turks did not like to have Christians around and did their best to drive them out of the country.

Bishops and priests in Europe began to ask for a new "holy war." This time the king of France and the emperor of Germany and Italy took part. Great armies left Europe to fight the Turks, or Saracens, as they were often called.

Fighting continued year after year, and neither side seemed able to win a complete victory. Then arose a skillful leader named Saladin among the Saracens. He led a large army to attack Jerusalem. The prayers and swords of the Christians could not save the city, and it fell once more into the hands of the enemy.

Death of "the Red Beard"

Saladin, the great leader of the Saracens, was a kind and noble-hearted man. When his army won back Jerusalem, he did not let his soldiers murder the Christian prisoners, as the Christians had done to the Saracens ninety years before.

News of Saladin and the capture of Jerusalem spread to Europe. Christians now realized that they had a strong, as well as generous, enemy. They made ready for a new and mightier crusade.

Three kings took part in this crusade—Frederick of Germany, Philip of France, and Richard of England.

Frederick of Germany was called "Barbarossa" which means "the Red Beard." He was seventy years old, but still had vigor in his body when he set out to lead his men by land toward Palestine. Before he arrived, however, he was killed while crossing a river.

A Saracen writer tells of Frederick's death in this way:

"He was drowned while trying to cross the river. The force of the stream carried him toward a tree. He struck his head and was knocked into the water. His men dragged him out, but he was on the point of dying. The angel of death came and carried his soul down to the lower world."

The Crusaders, of course, had a different idea of what happened to Frederick's soul. They were sure that it had gone to heaven. All persons, in fact, who died in the "holy wars" were supposed to go to heaven.

The Germans back home, at least some of them, had still another idea about their ruler. They said that he still lived, but was asleep on a lonely mountain. His long red beard was thought to be growing and growing, twisting itself about the rocks.

"When the ravens quit flying over his head," said the story-tellers, "Frederick will wake up. Then he will come back and punish the wicked and bring joy to the good. The world will be in a golden age."

Richard's Part in the "Holy Wars"

An old tale says that King Richard was given the name of "Lion-Hearted" because of a fight with a lion. Richard, so runs the tale, was in a forest when a lion attacked him. "The king had no weapons so he plunged his hand down the beast's throat and tore out the heart."

Of course that is only a silly story. The real reason for the name was no doubt the boldness and power Richard showed in war. It was thought to be "like the courage of a lion." So he was called the "king with a lion's heart," or "the Lion-Hearted."

Soon after he became king of England, Richard decided to take part in the new Crusade which was being prepared.

In raising money for the adventure, Richard did some rather mean things. He and his under-lords forced Jews to lend them money. Then they caused fighting against the Jews, many of whom were killed. In this way they rid themselves of part of their debts!

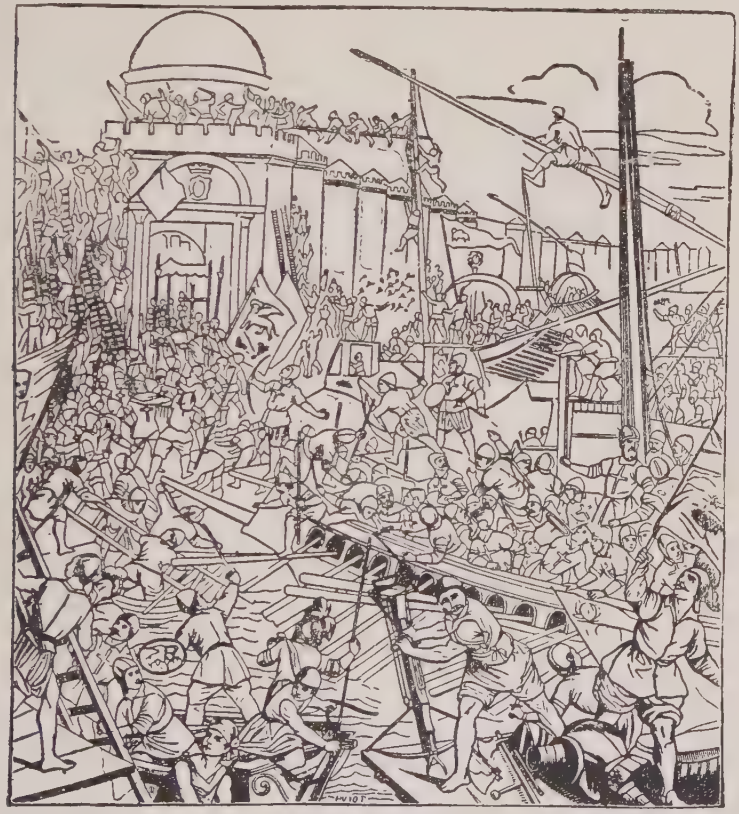
Another way Richard raised money was by making bishops and others pay him when he gave them church offices.

The money thus raised was used to buy arms, horses and ships. In company with King Philip of France, the English made their way into Palestine.

Arriving near the town of Acre, they met some of the German Cru-

saders who had been with Frederick the Red Beard. Together they began to attack the place.

The Saracens put up a hard fight, but the Christians won. In this battle, Richard proved what a bold warrior he was.



A scene when the Crusaders tried to take a Saracen city. Notice the ladders being used to scale the walls. You will be able to make out quite a number of crosses, such as were sewn on the Crusaders' garments.

The Crusaders won other fights against the Saracens, but could not take Jerusalem. By and by, Philip of France left to go back home. It is said that he was jealous of Richard. Before long, the "lion-hearted" king followed his example.

Philip reached home without trouble, but not so Richard. He was

shipwrecked and came into the power of the German emperor. This emperor disliked the English king, and would not let him go until a big ransom was agreed upon.

Not long after he was set free, Richard was struck by an arrow while fighting in France. He died from the wound.

A boy pictured as a bishop by an artist of the Middle Ages.

The Children's Crusade

Half-success, failure, failure—that was the story of the Crusades.

Christians in Europe began to wonder *why*. They felt sure that they were right. Yet they could not win lasting power in the Holy Land.

"God must be on our side," they said. "Why don't we win?"

Then answered the priests and others:

"Yes, of course God is on the Christian side. The only reason we don't get the Holy Land is because the Crusaders have not been good. Why not let the children, who are pure of heart, go to the Holy Land? God will make miracles and keep the young Crusaders from harm. They will win what soldiers cannot win."

So there came to pass one of the saddest events in the life of mankind—the Children's Crusade.

The centers of this talk were France and Germany. Parents liked the idea. They told their boys and girls to get together and march to the Holy Land.

Children are full of eagerness and adventure. They also have faith. You can imagine what this appeal meant to them. They

flocked together by the hundreds, nay, by the thousands! Simple country lads and lasses joined with their brothers and sisters from the towns.

Those from Germany marched southward toward Italy, intending to take ship from Italian ports. French boys and girls marched toward Marseilles.

As they marched, the children sang, "Lord Jesus, give back your cross to us." Some of them even believed that the sea would open a path for them so that they would not need any ships to get to Jerusalem.

Then came the bitter reality. There was no miracle. Hundreds lost their way in forests, dying of hunger and thirst. Others fell exhausted by the long tramp. Still others lost their lives while trying to cross the snowy Alps.

Great numbers, however, did reach the ports for which they were bound. Many of these fell victim to another kind of evil. Greedy shipowners saw a chance to make money. They said to the children:

"Come on our ships and we'll take you to the Holy Land."

After getting the boys and girls on board, they carried them to other seaports and *sold them as slaves*. Some of the children who became slaves were bought by Saracens from the "Christian" shipowners!

The number of children in this Crusade has been estimated at from fifty to ninety thousand. Not all of them came to an unhappy end, because many had turned back before going too far from home, while others were adopted by families in Italy.

The Saracens still kept Jerusalem.

St. Louis and the End of the Crusades

The terrible end of the Children's Crusade did not stop the attempts of Christians to take Jerusalem. Time and again they set out on new "holy wars."

In the year 1229 all of Palestine came under the power of the Christians. This was by a treaty made with the sultan of Egypt.

Both Christians and Saracens could keep their own religions, the treaty said. Peace and a kind of friendship lasted for fifteen years. Then tribes from Asia pushed their way into Palestine and drove the Christians away.

This caused more wars of the cross.

The last two were led by Louis the Ninth of France, who was a pious man, devoted to the church. In his own country, he had done a great deal to make people praise him. Hoping to make the church more powerful, he decided to do his best to win Palestine for the Christians.

Setting out with an army of about fifty thousand men, he sailed to Egypt. It was believed that Egypt was the "key" to the Holy Land. This meant that Christians needed to get power in the land of the Nile before they could have lasting power in Palestine. The Crusaders captured one small city in Egypt. Then their success came to an end. Food was scarce. Some soldiers starved to death, others died of disease. King Louis was caught and held prisoner.

An old, partly torn portrait of St. Louis.

In order to get their king back, the French were forced to pay a huge sum to the sultan of Egypt. They grew sick and tired of the whole idea of holy wars. Not so with Louis! He decided to try again. For twenty years he labored to make things ready for the new Crusade. Then, with a large army, he set sail.

Where do you suppose he went? Not to the Holy Land, not even to Egypt. Louis sailed with his whole army to Tunis, a land in northern Africa! He landed there because he thought he saw a chance to do

some good work for the church, while on the way to the east. He had heard that the ruler of Tunis was thinking of becoming a Christian, and supposed this might be helped along by a Christian army.

While his soldiers were trying to capture a city, Louis died of fever. The "crusade" broke up. The son of Louis made peace with Tunis and began looking after his own country, France. Louis was recognized by the church as a saint. A large American city bears his name.

After the death of Louis, the people of Europe quit going on Crusades toward the Holy Land.

CHAPTER XXXV

LIFE AMONG THE COMMON FOLK

While knights and nobles were feasting, dancing and carrying on wars, other men were doing the hard work of the world. For miles around castles was land which "belonged" to the lord. On this land lived people who toiled day in and day out, with little time for amusement. They were "serfs" and their lives were little better than those of slaves.

Two French serfs, probably meant to be cutting hay. The man at the left is sharpening his scythe.

The serfs lived in small houses or huts. They did not own their homes, nor did they ever hope to own the land. Their lot was to till the soil, to tend to flocks and herds. They were not supposed to move from place to place, unless the lord ordered them to do so.

In different parts of Europe, there were different customs in regard to what the serf had to do. Sometimes he was forced to give a certain part of his crops to the lord. In other cases, he had land which he farmed for himself and obtained all the crops; but three or four days each week, he was forced to work on land from which all the crops went to the lord.

The serf at the left holds a spade which is all wood, except for an edge of iron. A rude hoe is being used by the other man.

The chief grains were barley, oats, rye and wheat. Bread was made from each of these, but only the lord was likely to enjoy white bread made from wheat. The

serfs were expected to be content with flour made from one of the "dark" grains.

Each serf family ground its own grain. Sometimes the lord placed a public bakery in a serf village, and the serfs would bring their flour there to be baked. Special taxes were laid to pay for such bakeries. There were more than twenty kinds of loaves baked in Europe. One kind was called "the pope's loaf," another "the knight's loaf," and still another "the squire's loaf." These loaves often differed in quality as well as in shape. Yeast was used for making cakes, but seldom for bread. As a result, the loaves were small and hard.

Four farming scenes, showing serfs at work.

How the Serfs Worked

We have the good fortune to possess quite a number of pictures showing how serfs did their work. In one scene, four oxen are drawing a plow after them. One man steers the plow, while another stirs up the oxen with a whip.

After the plowing was finished, serfs went over the ground to break up the hard pieces of earth left behind. A man and a woman breaking clods with wooden mallets are pictured. Better farms were likely to have a harrow drawn by a horse or ox, to do this work. In a picture on page 267, a boy walking behind a harrow is hurling stones at birds. He is using a sling, and you can see that he has a good supply of stones. Birds were a nuisance at planting time because they ate up the seeds if they could.

To cut weeds, a forked stick and a hook were sometimes used. This work was largely done by women. Women were also forced to go out in the fields at reaping time. Short sickles were in use for this work.

Villages of the Serfs

Serfs were often allowed to have their homes in small villages. The village was usually not far from the lord's castle. It had a single winding street, with houses close together on either side. Sometimes the lord would build stone walls around his villages, to protect them during war. A village was thought to be a valuable piece of property.

The wars between nobles were carried on with great fierceness. A baron or duke of one part of a country would send an army against a rival. The invaders would destroy the growing crops of the serfs. If they could, they would burn the villages; and that is why nobles were willing to go to the expense of having walls built.

When the serfs lost their crops, they were in a sad condition. Winter would come along, with hardly anything for them to eat. In some cases, they would gather acorns from the forest and boil and dry them, to make a kind of acorn flour for bread. If the lord who owned the serfs' land was beaten, the lord who won might take over some villages. The serfs went with the villages, and worked for the new lord in the same way as for the old.

It was fighting which chiefly helped the villages to become free in

the long run. Lords who were at war became pressed for money. They would then go to a village and say:

"If you will give me a sum of money, I will let you off from part of your duties to me."

The serfs might then scrape together their poor savings and hand them over to the lord. In return they would have less to do for their master. Perhaps they would need to work for him only three days a week instead of four. Later on, they might again "buy" an extra day of freedom. In such a way, some villages became entirely free from their lords.

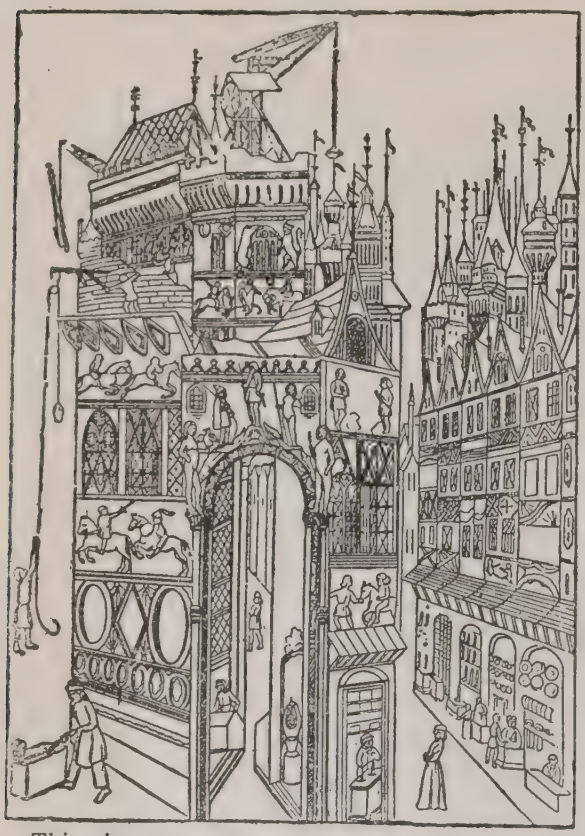
Other villages were able to win freedom in a different manner. During war, they would close the gates against their own lord as well as the enemy. Then the strong walls would be of use to the serfs instead of to the master. In such cases, however, the lords were likely to patch up their quarrel and march together against the rebel village. If the serfs were beaten, they were sure to be treated with great cruelty.

The Growth of Cities

As time went on, some villages increased in size until they could be called cities. No longer were they just a group of houses for people who worked on nearby land. There were millers, bakers, shoemakers, butchers, armor-makers, and others who did their work within the town walls. Peasants who lived a few miles away would come to the town to trade. Buying and selling went on apace. There arose a group of men who were especially clever at making money by selling goods. They would buy at low prices and sell at high. These merchants built up fortunes. Soon their wives wore clothes which were just as costly as those of the ladies in the castles.

The money then in use was sometimes coined by order of a baron or duke, sometimes by the king. Copper, silver and gold were the metals most commonly used. A favorite trick of the king or noble was to cheapen the coins. He would send out hundreds of coins

which were supposed to be silver: but they would really be partly iron or tin. This gave the lord more money to work with, but it was hard on the persons who found themselves left with cheap coins.



This picture was drawn by an artist during the Middle Ages. He made the buildings look more fancy than they really were. Notice the many figures on horse-back on the building which was not finished. At the left a man is pulling an object to the top, by means of a long rope and a pulley.

In spite of such tricks of the nobles and kings, cities managed to grow larger and larger. The chief city in France was Paris, which had been started back in Roman times. London was the largest city in England. It boasted about thirty thousand inhabitants. The city of Novgorod in Russia was six or eight times as large as London.

Both London and Novgorod traded with a group of German cities combined in the Hanseatic League. Perhaps you wonder what things were chiefly traded during those days. Cities near the Baltic Sea sent salt fish, furs, iron and lumber to the south. Towns in Flanders were noted for linen and woolen cloth. In northern Italy, church furniture

was made as well as vestments for the priests. In Germany, France and elsewhere, armor for knights was made, along with shields, lances and swords.

In each city there was a good deal of trading going on. Merchants would sell articles such as we have mentioned. Often they sold goods "straight from the factory." In such a case, the "factory"

A scene at an inn during the Middle Ages. At the right, four men are playing cards and drinking. At the left-hand table, money is being counted out, perhaps to settle a gambling debt.

would be a shut-in place behind the shop with only a few persons at work. There were no machines like those used in factories nowadays.

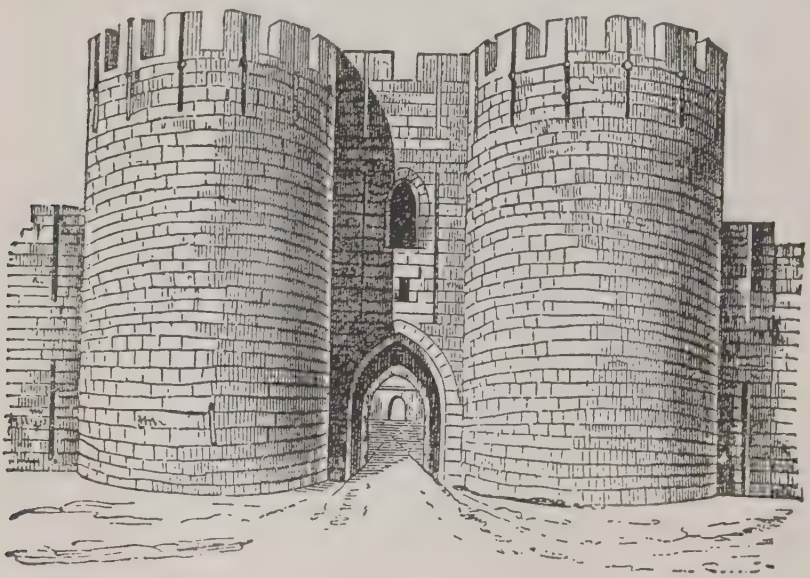
After cities began to grow large in Europe, small hotels or "inns" were built in many places. People used them not only for sleeping, but also for playing games, exchanging news, drinking and gambling.

Italian Cities and the Emperor

The emperor of Germany had a hard time keeping his power in northern Italy. Almost all the time there was a revolt going on somewhere. Cities were especially hard to manage.

Milan, Pisa, Genoa, Florence and Venice were five cities which broke away from the emperor. They said that they would rule themselves. Quite a few smaller towns did the same thing. As you would expect, the German emperor tried to get them back; but they were tough fighters and beat him off.

A man who lived in Milan wrote down some "facts about the city." He said that there were two hundred thousand people there, and thirteen thousand houses. That would make about fifteen persons to



An entrance to a walled town of the Middle Ages. See how heavily the towers were built.

a house. There were supposed to be two hundred doctors and eighty schoolmasters.

Italian cities boasted of a number of good-looking houses, in which

lived the richer citizens. Heavy walls of stone, with towers here and there, kept away enemy armies. As a rule, each town was governed by "consuls." They received the name in memory of the men who used to govern Rome. Some towns, like Rome, had two consuls. Others had from four to twelve.

People in the free cities often grew excited over law cases. If the judge said that a man should be punished, the man's family and friends were likely to shout:

"No! He must not be punished! The judge is not fair!"

Then there would be a battle to set the prisoner free.

In an effort to make law cases go smoothly, men from out of town were often chosen for judges. They were not supposed to have any relatives or close friends inside the city walls. They were not even allowed to eat or drink in the house of a citizen. This system helped to calm things.

The cities of northern Italy kept their freedom for hundreds of years. They became stronger and stronger. Their chief trade was with cities in the east. Ships from Venice and Genoa sailed to Alexandria, Egypt, and to Constantinople. There they traded with merchants who had goods from the Orient.

Fairs of the Middle Ages

Fairs were held in Europe more than a thousand years ago. They arose out of religious feasts. Priests told farmers to come to certain cities for the feasts. They came and looked around.

Merchants noticed how many visitors were in town, and made extra efforts to sell them goods. By and by, the feasts were turned into fairs, where merchants showed their goods. To get more people to come, jugglers were hired to give shows.

The French town called Landit was famous for its fairs. Fifteen days of each June were used for the fair. Goods from many parts of Europe were shown for sale. One article for which the fair was famous was "parchment." Parchment is the skin of sheep or other

animals, prepared for writing. It was widely used during the Middle Ages. Students from the University of Paris were in the habit of

Jugglers doing balancing tricks.

coming to Landit to buy the parchment. They would march to the fair in procession.

One trouble with taking things to fairs, was the tolls which were charged. When a man took goods across a lord's land, the lord would probably have him stopped. The lord's soldiers would say:

"See here! You have to pay for taking these goods across this land."

In the same way people were likely to be charged toll when they came into harbor and stepped off their ships.

CHAPTER XXXVI

CUSTOMS OF EUROPE LONG AGO

At palaces, and large castles, a hunting-horn was blown to call people to dinner, during the Middle Ages. Basins of water were brought in so that each person could wash his hands. The water was commonly scented with a mild perfume. Men and women divided themselves in couples while at table. It was the custom in some places for a

All the guests at this banquet seem to be women. Note the harp-player and the dog at his feet.

man and woman to have only one cup and one plate between them. To "eat out of the same plate," was an honor they paid each other.

Some of the richer households had from twenty-five to fifty servants to cook and place food before the guests. One king of France had a hundred such servants.

At the height of "dinner folly" of those times, dishes were sometimes brought in by servants in full armor. They were mounted on horses, which clattered through the hall between tables. Each horse was covered with a white or gay-colored cloth.

A French writer tells of a feast given by the Count of Anjou:

"On the table was a center-piece. It showed a lawn with peacock feathers and green branches around. Tied to the branches were bunches of violets and other flowers.

"The first course consisted of rabbit, stag-meat, a stuffed chicken, and a loaf of veal. At each end of the table was a huge meat-pie, with smaller pies crowning the top. Each large pie contained the meat of a whole roe-deer, a gosling, three ducks, six chickens, ten pigeons and a young rabbit, not to speak of twenty-six hard-boiled eggs.

"For the next three courses, there were twelve chickens, a pig, a young goat, a deer, a fat duck, a wild boar, red-and-white jelly, sliced cheese, strawberries, and plums stewed in rose-water. The last course was made up of wines, fruits and sweet pastries."

Sometimes, trap-doors were built in the floors of dining-halls. Tables were raised or lowered through these as if by magic.

Boys of the present time would dislike to wear dresses such as are pictured here on lads who lived during the Middle Ages.

Pastimes of Boys and Girls

"All right, snap the apple!"

Those words were often heard when children gathered for play during the Middle Ages. To "snap" meant to catch the apple in one's teeth.

Our picture shows lads playing that game. Two of them have their mouths open. We can guess that when the apple swung to either side, a boy tried to bite it; and that on the back swing, the other tried his luck.

Games of this sort are still played by boys and girls, especially at Hallowe'en parties.

There was also a game which boys played with the fingers. We might speak of it as "Match Fingers." One player held up two, three or four fingers. The opponent tried to hold up the same number of fingers, instantly. This game was a great deal of fun. Those who watched often made sport of the players who held up the wrong number of fingers.

"Match Fingers" was played by the ancient Romans, and is still well-liked by Italians.

Boys sometimes played at marbles, a game which seems never to lose its charm. They also liked to spin tops. Of course their tops were simple affairs and would not spin nearly so long as those made nowadays.

Girls had their fun, too. Sometimes they would gather in groups and sing songs. At other times they played quoits, a game of throwing rings around stakes driven into the ground. Blind-man's buff and hide-and-seek were other games popular with the girls. Boys doubtless joined in these games at times. "Playing with dolls" brought more fun to the lasses of the Middle Ages. I doubt that there will ever come a time when younger girls will fail to enjoy carrying a doll around, or putting it to bed.

Schools and Universities

Some children think that their schoolwork is too hard. If they had gone to school during the Middle Ages, they would have had much more to complain about.

Sadly enough, very few girls of those times had a chance to get any schooling at all. They had to stay at home and be content to learn a little from the grown folks. It was not usual for women to obtain much knowledge.

Boys were somewhat better off, but only a small part ever learned to read or write—perhaps only five out of a hundred.

The boys who did go to school had a hard time of it. They were beaten by their teachers when they made mistakes. The studies were not interesting. The main thing was to learn Latin, which was driven into their heads by constant drill. In many schools, it was a custom for boys to write a composition in Latin every week. After learning Latin, some boys quit school. Others entered colleges or universities.

This picture was made about the time of Henry the Eighth. It shows a group of students listening to a professor. These students were lucky, for they had books and better benches than some others.

The main universities in England were Oxford and Cambridge. There were four universities in Scotland and one in Ireland. Italy had about a dozen. France and Germany had most of all.

Sometimes groups of students would leave one town and go to another. Then they would start a new university. Cities were glad to have them come.

Many college teachers were in the habit of reading their lectures to the students. No doubt this was tiresome at times. A rule was made at one place against students "shouting or whistling" while the professor was reading. This rule also forbade students to throw stones in the lecture hall!

Most of the studying at the universities was about religion, law and medicine.

College Disputes and Fights

It was common for students of the Middle Ages to wear daggers or swords at their sides. Some of them were wild fellows who did not care much about learning. They spent their days gambling, drinking and having a "good time" in general.

What do you suppose the daggers and swords were for? Chiefly

for fights with townsmen. At Oxford, Cambridge, Paris, Cologne and other university places, many persons lived besides the students. They often quarreled with the boisterous fellows who went to the universities.

Sometimes, the students fought among themselves. At Oxford, there was a hot feud between Irish and Scotch students.

In an effort to put an end to the fighting, Oxford decided to impose fines. Any student who struck with his fist, was to be fined four shillings. For striking with stone or club, the fine was six shillings

German students.

and eight pence. The fine was ten shillings for striking with a dagger, sword or ax.

At one time there was a dispute between Sir Thomas Lancaster, who had many students in his charge, and John Merton, a teacher. The wife of Merton was also in the dispute, on the side of her husband. Lancaster was backed by a certain Simon Marshall.

Instead of going to law, those four tried to have the quarrel settled peaceably. One of the chief men of the university heard their case and decided:

"You shall agree not to go to law about this dispute. Neither shall you strike one another, or use words of abuse, *or make faces.*

"Instead of doing any such things, you shall have a party together. One side must supply a goose and some wine. The other must bring bread and beer."

When students lived together in halls or "dormitories," there was likely to be a good deal of noise-making. Sometimes, a disorderly student was put on bread and water. In other cases, he was punished by having the Bible read aloud to him while he ate his meals.

A Sick Room of the Middle Ages

On the next page is a picture which was made almost five hundred years ago, for a book written by hand. That book is now in the British Museum of London.

You can easily tell that the inside of a sick room is meant to be shown. Notice the pillow underneath the man's head. It was the style then to have pillow corners fixed in that manner.

The sick man is being waited on by two women, his wife and a maid. The wife is sitting in front of an open fire, and is making medicine. Over the fire is a pot containing herbs. Juice is being boiled out of the herbs, so that it can be mixed with other juices. On the wife's knee is a book which she is reading to find out how to make the medicine.

Doctors of the Middle Ages did not know very much about the way the body worked. One of their chief "cures" was to make a person bleed. Probably they did more harm than good.

Mules and a Tale of Riches

Mules are animals of mixed blood. They are half-horse and half-donkey.

Nowadays, you seldom see anyone riding on a mule. In the Middle Ages it was different. Some of the finest ladies were proud to be

seated on the backs of mules. Sometimes they rode side-saddle, sometimes astride. Here is the way a French writer spoke of a mule:

A Sick-Room.

"The Lady Eglantine had a white mule, and there was never a better one. Whoever sat on it felt no evil. It carried her gently, at an ambling gait. The bridle was of gold, and was made in Egypt."

Another French writer mentions mules in this story about riches:

"A duchess named Beatrice saw that her husband was sad. So she said to him:

" 'Why do you let yourself be sad? Are you not a bold and noble knight? Are you not rich? Gold and silver fill your money-boxes. You have rich clothes for clothing. You have hawks, horses and mules.'

" 'Yes, lady, you say true,' replied the husband, 'but you make one mistake. Wealth is not just money, rich clothes or fine horses. The best wealth is friendship. The heart of a single friend is worth the gold of a whole country.' "

Toward the end of the Middle Ages, mules went out of fashion for riding. Horses took their place.

A horse rather than a mule was chosen by this lady for her journey. The driver sits on the horse, a custom during part of the Middle Ages.

CHAPTER XXXVII

THE TRAVELS OF MARCO POLO

A little more than six hundred years ago, there entered Venice three men with worn and ragged clothing.

"Who are you?" they were asked.

"Our name is Polo," was the reply. "We used to live in Venice. We have been in far Cathay, thousands of miles from here, and have spent much time north of the land of India. We have been friends of Kublai Khan, the great ruler of the Orient."

"Indeed!" exclaimed the hearers. "But no, ha, ha! How can we believe what you say? You don't look like friends of any king. If you were, you wouldn't be in rags."

The three weary travelers said:

"We'll give a party, and you can all come. Then we shall prove that we are friends of a king."

At the party, the three who called themselves Polo, were not dressed in rags. Instead, they wore robes of bright colors and costly cloth.

The guests thought:

"This is all very well, but fine clothes do not prove that a person is rich, and has been a friend of a king."

Then the ragged garments were placed on the table. When looked at closely, these "rags" proved to have odd seams sewn here and there. One of the men cut the threads. To the astonishment of every guest, out dropped pearls, rubies and all manner of costly gems!

"These jewels," explained one of the Polos, "are the riches we have brought from the Orient. The great khan gave us much gold. It was too heavy to carry here, so we used it to buy the gems you see on this table."

The guests were amazed, but the longer they looked the easier it seemed to believe what the travelers had told them.

Before long, the Polos were well settled in Venice. People regarded them as rich and learned citizens. They were, in fact, the greatest travelers of their time. They were named Nicolo, Maffeo and Marco.

Venice was then a rival of Genoa. The merchants of each city wanted to get trade in foreign places, so as to make money. From time to time, there was a war. Such a war came after the return of the Polos. Marco (who was the son of Nicolo) took part in a sea battle. His ship was captured and he was taken to Genoa as a prisoner.

Marco's father heard of the event, and tried to ransom him; but it was of no use. He was kept in prison.

After a while, the fame of Marco Polo had spread through Genoa. People came to his cell, and asked him to tell about his strange travels. At first these visits were welcome to the prisoner, but then he became tired of telling the same thing over and over. He decided to have a book made so that people could read for themselves.

The volume was called "The Book of Marco Polo." It was written by hand, not printed. It seems that Marco told the story, and a friend wrote down the words.

Not long after that, Marco was freed and returned to Venice.

How Marco Went to China

Marco Polo owed a great deal to his father, Nicolo, and his uncle, Maffeo. If it had not been for them, he probably would never have had a chance to go traveling.

It happened in this way:

Nicolo and Maffeo went to Constantinople and stayed for awhile. Marco was then a baby and was kept at Venice with his mother. His father and uncle took it into their heads to travel farther eastward. After they had traveled some months, they were met by a group of men who said:

"Why don't you go to visit the great khan? He wants to see people from Europe. Go, and he will treat you well."

The brothers traveled onward. At last, they reached the court of the khan (emperor) whose name was Kublai. He received them with pleasure and asked them many questions about Europe.

For years, Nicolo and Maffeo stayed with Kublai Khan. Then he asked them to go back to Europe and see the pope. The khan wanted the pope to send Christian missionaries to Cathay (or China). After a long, hard journey, the brothers reached Europe. They found that a pope had died and that no one had been chosen in his place. While waiting for a new pope, the travelers visited Venice. Marco was then fifteen years old. His father and uncle decided to take him to China with them when they returned.

At last a new pope was named. He was anxious to send missionaries to China but could find only two priests willing to go. These two set out upon the long journey with the three Polos.

Before very long the priests heard of a war going on in the land ahead. They were afraid and decided to quit the journey. The Polos still pushed their way ahead. The trip to the khan took more than three years.

Kublai was overjoyed when he saw the Polo brothers again. They told him how hard they had tried to get the missionaries.

"Who is the young man you have brought back?" asked the khan.

"That is my son, Marco," replied Nicolo proudly.

Year after year, they stayed at the court. The khan took a liking to Marco, and sent him on many errands to distant parts. When returning from each strange country, Marco told news of what he saw. Kublai was delighted, because he liked to learn more and more about the earth and its people.

Marco's Tales of the Tartars

A good deal of the book of Marco Polo is taken up by tales of the manners and customs of people in the Orient. Among the people he tells about are the Tartars or Mongols of China. Here are some of the things he says about them:

"They have a god called Natigay. They say he watches over their children, cattle and crops. Every man has a figure of him in his house, made of felt and cloth. They also have images of the god's wife and children. When the Tartars eat, they take the fat of the meat and rub grease on the god's mouth. They also do that to the wife and children. Then they take some of their broth and sprinkle it before the door of the house. When that is done, they think that the god and his family have had enough of the supper.

Orientals drawing back the string of a cross-bow, as pictured in a copy of "The Book of Marco Polo." The number of legs is right, but it is hard to tell which is which.

"Clothes of the rich Tartars are for the most part of gold and silk stuffs, lined with costly furs, such as sable, ermine and fox-skin.

"This is the way they punish crime: When anyone makes a small theft, he gets seven blows of a stick, or seventeen blows, or twenty-seven, or more. The number of blows runs up to one hundred and seven. If the theft was horse-stealing, the thief is killed with a sword. But if he can pay nine times the value of the horse, he is allowed to go free.

"Oxen, camels and horses graze over the plains without any keeper. They are marked with the brands of their owners. While grazing, they get mixed up, but they can be sorted by means of the brands."

They have another custom, which is this:

"Sometimes a man has a daughter who dies before marriage. Another man may have a son who dies before marriage. Then they arrange a grand wedding between the dead lass and lad. And marry they do, making a regular contract! After the papers are made out, they put them in the fire to burn. That is so the spirits in the other world will look on each other as man and wife. Dowries are paid in such marriages, but they are of a queer kind. They are just painted on paper, and the paper is burned. This is supposed to give the couple wealth in the next world."

"The Book of Marco Polo" was copied by many persons, and was soon being read in many parts of Europe.

CHAPTER XXXVIII

JOAN OF ARC

There was a time when the king of England claimed he was also the ruler of France. That was about five hundred years ago. English soldiers went into France and fought. The French nobles were then fighting against one another. The English captured town after town, castle after castle. They even took Paris. Only about half of France was left under the power of French rulers. Many Frenchmen feared that the country would never be rid of the English.

In western France was a village called Domremy. It had only three or four hundred people, most of them farmers who worked on near-by land. In Domremy lived a farmer called James of Arc. He had received this name because his ancestors had lived in a village called "Arc," some distance away. James of Arc was the father of five children, three boys and two girls. One of the girls was named Joan.

Joan was a serious child. It is likely that she heard many stories about the saints. She was always sure to go to church on Sunday, and often went on other days as well.

In the village church was a statue of St. Margaret. We can well believe that little Joan used to look long and thoughtfully at that statue while she knelt praying. One day, when Joan was about thirteen, she went into a half-dream. In her dream she saw an angel.

In later years she told this story:

"The archangel Michael came before me. He said that I should be a good girl and that God would help me. He said that I would soon be visited by St. Margaret and St. Catherine."

For a long while Joan did not tell anyone about her vision. She helped her mother with the housework. She spun thread, sewed, and sometimes went into the fields to help gather the crops. Now and then, she watched the cattle in her father's pasture.

All this time, she later said, she was in touch with St. Margaret and St. Catherine. She declared that she heard voices and that they told her she would some day save France.

Joan Goes to See the Dauphin

When Joan of Arc was seventeen, she decided to go to see the dauphin of France. The word "dauphin" meant the eldest son of the king. It was the same as "crown prince."

Soldiers wore armor of this kind in the days of Joan of Arc. Joan's home village was robbed and partly burned while she was growing up.

Joan was a good-looking girl, with dark hair and a friendly face. At least one young man wanted to marry her, but she would not listen. She felt that she had a duty to perform.

Her father began to suspect that she was going to join the army. One day he told her:

"I would rather drown you than let you go among the soldiers."

Joan did not like to disobey her father, but she was firm about wanting to do what "the voices" told her. She went to her cousin's home in a town not far away. Her cousin's husband was named Laxart. Joan said to him:

"The King of Heavens has told me to do two things. First I must lead an army to drive the English away from Orleans. Next I must put the crown on the head of the dauphin, so he can be king of France."

Laxart told her that he would do what he could to help her. Together they went to a certain village and asked a captain to help them. The captain said that Joan ought to be taken home and whipped.

This did not make Joan lose heart. She went to a duke and asked him to help her get to see the dauphin. The duke was a sickly man and did not care about saving France. He asked her to cure him by the help of her "voices," but she did not care to try.

Leaving the duke's castle, Joan started on the road to see the dauphin, while Laxart returned to his home town. The girl traveled with two soldiers whom she had met. She wore men's clothes.

At last they reached Chinon, the town where the dauphin was staying. He was a weak-minded man. While France was in danger, he spent his time feasting. The news that a maiden was "coming to save France" had been told him, however, and he was curious to see her.

Joan was allowed to come into his presence. He listened to her plan, but could not make up his mind, and told her to come another time. Again and again she came to see him, but each time he did not know what was best to do.

Finally, he turned her over to a group of priests, telling them to find out whether she was guided by "good spirits" or "evil spirits."

Joan did not like to have the priests question her, but she gave them answers. They told the king that she must be in the hands of good spirits. An army was then raised for her to lead. At its head, she rode toward Orleans.

Victory and Death

The people of Orleans were hungry and in great fear that the city would have to give up. They had heard of Joan of Arc, and were hoping that she would come quickly, before all was lost.

At last she arrived with her army. The English were beaten in several battles. After the last one, they fled far from the city. Joan was hailed as a savior. Crowds surged around her. Women and children tried to kiss her hands and feet.

Soon after the victory at Orleans, Joan went to see the dauphin again. She asked him to come to Rheims to be crowned as king. The dauphin consented and the peasant maid of Domremy had the joy of being present at the event.

Knights in armor rode in the army led by Joan toward Orleans.

In the months which followed, Joan went into other battles. These were only partly successful. In one case, she made a vain attempt to drive the English out of Paris. She was wounded in the fighting, but her wound did not prove fatal.

Some of the nobles of Burgundy were helping the English. While in a battle against these nobles, Joan was dragged from her horse, and made captive.

A battle scene of the late Middle Ages. Note the three cannon near the edge of the river. Joan of Arc fought in battles where spears, swords, battle-axes and cannon were used.

Prison was her lot for the next two years. The Burgundians hoped to obtain a good deal of money as ransom. The weak-minded

king of France did nothing to help the girl who had done so much for him. He let her linger in prison. The English, on the other hand, were anxious to have her killed. They told Bishop Cauchon of Beauvais to make a bargain with her captors.

The bishop went to the Burgundians and asked to buy her. It took a great while for the bargain to be made, and the girl was almost in despair while she waited. At one time she tried to escape. She worked her way between planks in the floor of her cell and found an opening in the wall of the tower. Then she jumped to the ground but was so much hurt by the fall that she could not get away before she was captured again.

Ten thousand pounds was the price set for Joan. The bishop made the bargain, the English paid the money.

Joan was placed on trial at Rouen, a city in Normandy where the English had power. It was a church court, and she was accused of being a witch. The same bishop who had bargained for her ransom, was her judge. After a long trial, she was condemned to prison for life, with only bread and water to eat.

Bishop Cauchon came to visit her.

"Ah," he said, "I see you are wearing men's clothes again! Very bad! Do you still believe in the 'voices'?"

"Yes," replied Joan.

This answer spelt death for the unhappy girl. In a few days, she was turned over to the English general and was burnt as a witch and heretic.

Thus ends the story of Joan of Arc. I am sure we shall all love her, for she was noble and did what she thought was right.

The English are Beaten

A few years after the death of Joan of Arc, a powerful French noble quit the side of the English. That noble was the duke of Burgundy. With the duke of Burgundy on his side, the French king was in a much stronger position. The English were beaten time and again.

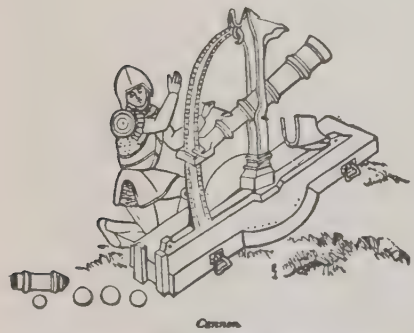
If the brave Joan could have looked at France twenty years after she died at the stake, her heart would have been filled with joy. She would have seen the English driven out of Normandy and every other part of France except Calais.

Gunpowder in Europe's Wars

The Chinese seem to have been the inventors of gunpowder. They used it long before anyone in Europe knew what it was like. Travelers from China may have brought knowledge of this powder to Asia Minor. At any rate, the Saracens seem to have learned to use it, and to have spread knowledge about it.

Gunpowder was known in Europe before the time of Joan of Arc. Certain men worked to make it more and more effective. One of these was a monk named Roger Bacon. For a long time, the powder was used more as a plaything than anything else. It made very bright fireworks.

Then, men set to work to use it as a means of killing one another. They knew that it would explode when confined in a small space. They made short-barreled cannon or "mortars." In the mortars, they put gunpowder and stone balls. When the powder was lighted, it blew the stone in the direction the barrel was pointed.



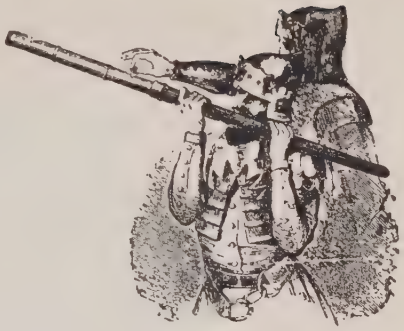
Cannon of this kind were easier to handle than the clumsy "mortars." Copper or iron balls were used as well as those of stone.

Short cannon with large barrels were hard to aim, and clumsy to move. The French learned to make smaller cannon, which could be aimed and moved much more easily.

In the year 1411, the duke of Burgundy had four thousand soldiers who carried hand-cannon. These were long barrels which could be

held in the hands. One of our pictures will give you an idea of how they were fired.

The use of gunpowder was bound to make warfare different. For a long time, the old ways of fighting were used along with cannon; but gunpowder came to be used more and more. Knights in armor learned that they could be killed by a common soldier armed with a hand-cannon.



A hand-cannon being fired. The man at the right is making a spark to set it off.

CHAPTER XXXIX

BOOKS AND THE ART OF PRINTING

The paper we write on is cheap enough nowadays. For five or ten cents we can buy an entire tablet. In the Middle Ages, it was quite different. Paper cost a great deal. If you could go back to that time, and take a carload of paper with you, you would be rich.

I am sure you remember that Egypt was the first home of paper. The Egyptians called it "papyrus." They made it from the inner bark of reeds which they found growing in the Nile.

People of Europe used Egyptian papyrus for many hundreds of years. It was fairly good for writing, but it became harder and harder to get. Many Europeans learned to use parchment instead of papyrus. Parchment is made from the hides of sheep, goats or lambs. It is still used for college diplomas. One sometimes hears a college student say:

A woman writing. She is using a quill pen. At her feet are two bound volumes.

"I'm going after a sheep-skin."

Of course he means a diploma, printed on parchment.

Making parchment was not a simple matter. The skins had to be soaked in lime for a while, then scraped and smoothed out. To make them smooth, they were rubbed with pumice-stones. It seems that this work was not always done well. When a man sat down to write, he might have to take out a razor and scrape off bits of fat left on the parchment. He might even have to remove short hairs.

Parchment was sometimes dyed with one color or another. Purple and yellow were the favorites. When purple dye was used, the writing was done with gold or silver inks.

About a thousand years ago, a new kind of paper was brought into Europe. It was made from cotton, and is believed to have been first used in China. This paper was coarse, dull and spongy. It was likely to blot when a person wrote with ink.

Later on, paper was made from rags, which proved much better. We are not certain just when rag-paper was first used in Europe. The oldest piece of it now known bears the date 1315. It was used for a letter to the king of France.

Book-Making During the Middle Ages

Two kinds of "books" were used during the Middle Ages—the rolled and the flat.

"Rolled" books were the more ancient. They were long strips of papyrus or parchment, which were rolled up when not in use.

Flat books were made of square or oblong sheets bound together. They were used by the Romans to a certain extent, but did not come into general use until the Middle Ages. The sheets were usually of good size, much larger than is common nowadays. After the text was written, they were bound together.

This monk is writing on a sheet of vellum. Vellum was made from calf-skin and was very much like parchment.

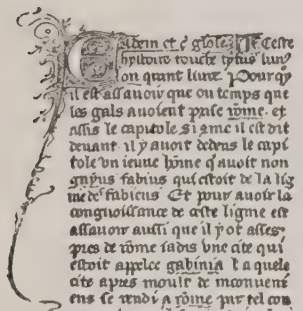
The cheaper books were bound between boards. Rich men, however, had ivory or leather covers for their books. Sometimes, the covers contained jewels and gold. This was mainly to show how rich the owners were.

One French king owned a prayer-book with fifty-eight large pearls set in the cover. A book about chess was "covered in green silk, with white and red flowers and silver-gilt nails." Velvet was also used

for binding. It was placed over sheets of pasteboard or wood. The covers were held together, when the books were not in use, by clasps of gold or silver, or by leather straps.

Perhaps the most interesting parts of the books were the pictures. They were made with great care, each one by hand, and showed many things about the life and customs of the people. Many of those pictures are printed in this history.

There were no printing presses in Europe then. The yellow men in far-away China had learned the art of printing, but they did not have a good chance to teach it to their white cousins.



An example of some of the fine writing or hand-printing done during the Middle Ages. The letters are so regular that they look as if they were printed, but they were actually made by hand.

Let me give you an idea of how long it took to make books by hand. A rich man wanted to have a good library, and set forty-five men to work copying books. They labored almost two years to make two hundred volumes.

Much of this kind of work was done by the monks. There were groups of monks scattered all over Italy, France and England. In many places, monks copied the Bible and books by Greek and Roman authors. The monks under the rule of Rome wrote in Latin. Those ruled by Constantinople wrote in Greek.

Some of those old books are to be seen in libraries and museums. If you are ever able to look at them, be sure to do so. You will be surprised how well some of them are written. The letters look almost as perfect as those printed in later times.

Other books of the Middle Ages were not so well done. The writers were careless. Sometimes they even made small changes in what they were copying. That is one reason there are so many disputes about "what the Bible says."

The First Printed Pictures

If you had to make twenty or thirty pictures of the same kind, I am sure that you would become tired of the job. That is what often happened to the artists of the Middle Ages. They were told to make pictures for many copies of the same book.

For a long time they did not know what to do about it. Perhaps it was news from China which gave them the clew which was to make their work less tiresome. The Chinese deserve the honor for making the first "wood-cuts."

"What is a wood-cut?" you may ask.

It is a block of wood with a picture carved on it. If the wooden picture is covered with ink, it will make a print when pressed against paper.

The Chinese printed pictures with wood-cuts, several hundred years

The designs on two playing-cards printed near the end of the Middle Ages. You see the "Ace of Carnations" and the "Knave of Hares." Other suits were the "Columbines" and the "Bells."

before they were used in Europe. Very likely travelers brought word of this Chinese custom to Europe. At any rate, wood-cuts began to be used there about five hundred years ago. You will be interested to hear how these cuts were made.

This seems to have been the common way:

A picture was made by an artist on thin paper, which a person could see through. The picture was turned over and laid on a block of wood. Then the artist, or another man, took a sharp knife and began to cut to either side of each line, so as to leave lines of wood under the ink. After all the wood between the lines was removed, the "cut" was finished. It could be inked, and hundreds of copies of the picture could be made.

Wood-cuts were first used in Europe to make images of saints, pictures for playing cards, and large, fancy initial letters. The initial letters were put at the start of chapters in books; all the rest of the words were formed with pen and ink.

Before long a Bible was printed. It was mainly made up of pictures, but there were a few words on each page—printed the same as the pictures. The idea of the book was not to give all the words of the Bible, but to make a picture story. This was known as a "block-book," because it was printed from blocks of wood, carved on one side for pictures and words.

Coster and Gutenberg

The use of block-books spread rapidly in Europe. Soon printers were making such books in large numbers in Germany, Holland and England. Some were printed in France, too, but not many.

Perhaps the busiest printers of all were those in Holland. Many of their block-books have been preserved down to the present time. One Dutch printer was named Laurence Coster. He lived in the city of Haarlem, and we know of at least forty-seven books which he printed. Of some of them, we have the entire volume. Of others, only a few pages have been kept.

Now comes the most interesting thing about Coster. It seems probable that he was the first printer in Europe to use "movable type."

Experts have gone over his books and declare that the same type-letters were used over and over again in certain volumes.

"Movable type" at first consisted of letters which had been carved out of wood. They were not in a solid block; each one was separate. They could be used to print a page of a book; then could be used again, to form different words on another page.

Before many years had passed, men learned to make type by "casting" it in metal. Letter designs were carved into wood, and molten metal was poured over. When the metal cooled, it became hard and had the shape of letters.

John Gutenberg, the great German printer, who was one of the first men in Europe to use movable type.

John Gutenberg came into fame soon after Coster. He lived at Mainz, in Germany. Some scholars give him credit for being first to use movable type in Europe. That honor, however, appears to belong to a Dutch printer, whether Coster or not.

Even so, Gutenberg's work is interesting. If he did not invent movable type, he did make it much better.

Gutenberg's life was a hard struggle. He gave all he had to build up the printing industry. When he ran out of money, he borrowed from a man named Fust. Later on, he had to face a lawsuit from Fust, who wanted to get his money back. Gutenberg could not pay, so he was forced to give up his shop.

That did not make him lose heart. He told another man what he was trying to do, and was lent enough money to start another shop. He then went ahead and did much more good work.

The printing art was now in Europe to stay.

Printers of Italy and England

Several German printers left their home country and went to Italy. There they started print-shops and used movable or "loose" type.

If you will look at this picture closely, you will get a good idea of a print-shop at the end of the Middle Ages. One man is putting ink on type with a roller. Two men, near the window, are "setting type."

Venice and Rome were the Italian cities which became most famous for printing. One book printed in Venice contained advice on manners for girls. It was a pocket-size volume with one hundred and eighteen leaves. Other Italian books of that time contained writings of the Greeks and Romans.

The first books printed in English were put out by William Caxton. He learned how to make and use metal type while living in Bruges, a city in Belgium. He spent more than thirty years there, and seems to have managed a print-shop of his own. The first book he printed was about the history of Troy. It was translated from the French.

Caxton added a note to the Trojan history, saying:

"Thus ends my book. I have translated it the best I could. My pen is worn, my hand is weary. My eyes are dimmed by looking too much on white paper. I have learned by great labor to put this book in print in the manner you see here. It is not written with pen and ink as other books have been. All the copies were printed together. They were begun on a certain day and finished all on another day."

I have put Caxton's words in a simple way. He wrote them in Old English, which had many spellings different from those used nowadays. Let me give you a sample:

"I was borne and lerned myn Englissh in Kent."

Those words were printed in a note at the front of the book, in which Caxton told something of his earlier life.

A year or two after publishing the history of Troy, Caxton returned to England. There he carried on the work of printing in great earnest. During his life, he put out ninety-six editions of books. The stories of King Arthur and the Canterbury Tales are the most famous he published.

From that time on, printing presses were busy in England, as well as in other parts of Europe. Books became cheaper, and thousands could buy them where hundreds had bought before. More and more persons learned to read,—but still it was to take centuries before even half of the people of Europe could tell what was meant by a written or printed word.

CHAPTER XL

PRINCE HENRY AND HIS CAPTAINS

You and I are lucky because we can learn so much about the earth. We know the sizes and shapes of the continents and oceans. There is hardly a part of the earth which someone has not visited and written about.

How different it was in the Middle Ages! People then knew nothing about the American continents, or Australia. Even about Africa, they knew very little. The part of Africa which was known was of course the northern part—chiefly Egypt and the land of the Moors (across from Spain). People wondered whether Africa was a continent or not. Some thought that the shore kept running south to "the end of the world."

Prince Henry of Portugal.

There was a legend that a ruler of Egypt had sent sailors southward along the eastern coast of Africa at about the time Rome was a tiny village. According to that legend, a few tired Egyptians turned up at Gibraltar three years later, having gone clear around the south of Africa.

Not many persons in Europe had heard of that legend. Probably no one who did hear it, believed it. Even so, there were thoughtful men who were eager to know what Africa was like. One of these men was Prince Henry of Portugal.

Prince Henry was half-Portuguese, half-English. His mother, the

queen, had come to Portugal from England at the time of her marriage to the king. Henry was the third son. He had little chance of ever ruling Portugal, but he did things which made him greater than any king Portugal ever had. He was a homely man, I might even say ugly, but his mind was filled with big ideas. The main thing he thought about was the sea, and the lands beyond.

If Henry had been rash, he might have ordered a ship made ready, and have had it sail here and there, wherever the wind might blow it over the Sea of Darkness (as the Atlantic was commonly called). Instead of doing that, he set to work to study and plan. He made his home in a small castle on a sea-swept shore, and there he invited learned men. His most important guests seem to have been Saracens and Jews. They talked about methods for sailors to battle their way southward upon the great ocean, to learn about Africa.

The Compass and Island Discoveries

On bright days, sailors can tell direction fairly well by the position of the sun; and on clear nights, the North Star is a splendid guide. On foggy days, or cloudy nights, it is very different. The heavens do not help. Ships might go far out of their courses—if it were not for the compass.

The compass is a needle which has been touched by a magnet. When held on a pivot, one tip of the needle always points north. If you know the north, it is easy to tell the south, the east and the west. The first compasses were made in Asia, probably in China. They were used on Chinese ships long before Europe knew about them.

During the later Middle Ages, sailors in Europe began to use the compass. It was a great help to them. They became less timid, and did not feel it always needful to "hug the shore."

When Prince Henry of Portugal decided to try to learn what the world was like, he thought:

"Every ship I send out must have a compass."

The best compasses which could be found were placed on the

Portuguese vessels. Henry remained in Portugal himself, but sent others out with ships from time to time. The sailors would come back to him and tell him what they had learned. To help the captains, the prince gave them maps. They were not very good maps, but they were the best that could be made at that time.

One of the first successes of Portuguese ships was the finding of an island a few hundred miles off the coast of Africa. It was called Porto Santo and was discovered during a voyage led by Zarco and Vaz, two squires of Prince Henry.

Oddly enough, this island was found by accident. The sailors had been trying to go down the shore of Africa, but were caught by a heavy storm. The gale blew them to Porto Santo, where they were glad to escape with their lives.

Prince Henry was delighted to hear of their discovery, and decided to start a colony. He sent sugar cane and grapes to Porto Santo to be planted. One day, Zarco noticed a dark line on the southwest horizon. He wondered whether it was another island, and decided to send a ship to find out. Sure enough, it was an island! The land was high, and was covered by splendid forests. It was called Madeira.

Beginning of the Negro Slave "Trade"

The Portuguese were not the first Europeans to get to Madeira or Porto Santo. Sailors from Genoa had reached the same islands, more than fifty years before, but they had not remained. The islands had been almost forgotten by the time Henry's men found them again.

Madeira was settled by the Portuguese. Much fine lumber was taken from the forests and sent to Europe. One day, Zarco lighted a fire which spread beyond control. It burned thousands of acres of timberland and lighted the sea for miles around. After that, the colonists spent most of their time raising sugar-cane and grapes, and making wine. Madeira wine is famous to this day.

The first white boy born on Madeira was given the name of Adam. The first girl was called Eve.

Of course Prince Henry was not satisfied with the finding of an island or two; he wanted to learn about Africa. Ship after ship was sent along the African coast. Almost every year they got a little farther south. Sometimes parties of sailors landed and traded with the natives. In other cases, they went ashore not to trade but to steal.

What do you suppose they stole?

Human beings—negro men, women and children! These unhappy creatures were seized and carried back to Portugal.

"The negroes are heathens," said the Portuguese. "We'll take them back to our country and make Christians out of them."

Prince Henry was a good-hearted man, but he allowed this stealing to go on. He seems to have believed that it was "for the good of the souls" of the black folk.

In the course of the next twenty years, thousands of negroes were taken to Portugal, where they were set to work as slaves. It is pitiful to read the tales of how they were captured from along the African shore. Their weapons were no match for those of the white man. The sailors would often rush upon one of their villages at night and scare them half out of their wits. Some would flee, but others would be captured and dragged to the ships.

In one case, two or three sailors were struggling to get a negro woman and child aboard a row-boat. The woman was strong, and the sailors feared that they could not force her aboard before she would get help. So one cunning fellow took her baby into the boat, and made as if to row away. The woman could not bear to lose her child. She climbed in and was taken off to be made a slave.

Gold dust and ivory were also obtained from Africa and brought back to Portugal.

The Value of India's Trade

One reason Prince Henry sent his men down the African coast was that he hoped to find a water-route to India. He thought that ships

might be able to sail around the southern coast of Africa, then east to India and the Indies.

Now comes the question:

"Why were the men of Europe so anxious to be in touch with India?"

The answer is that India was the great trading center of the Orient. It sold many things which were not raised in Europe, and other things which could not be made so well by the hands of European workmen.

Indian calico and Chinese silk—these were two products Europe could not equal. India was also willing to sell fine rubies, diamonds and emeralds. From the islands near India came spices of various kinds: nutmegs, pepper, ginger, cinnamon, cloves. From the Orient also came borax, rhubarb, dates and (alas!) castor oil.

Most things from the Orient reached Europe through the ports of

This quaint old picture shows two camels being led toward a ship to be unloaded. If you will look closely, you can make out a number of laden camels in the background.

Venice and Genoa. Sailors from those cities traded with merchants in Constantinople and Alexandria, Egypt.

Goods had to be taken across a hard route from India to Egypt

and Constantinople. At least part of the way, they were carried across deserts on the backs of camels. Parties of men with loaded camels were often attacked and robbed—especially by bands of Turks.

That is why a water route to India was so much needed. Prince Henry did what he could to get ships around Africa. Some of his captains managed to reach points on the African coast almost as far south as the equator; but the prince died long before the Cape of Good Hope was reached.

CHAPTER XLI

THE STORY OF COLUMBUS

While Prince Henry was sending his ships down the African coast, an important event happened in Italy. A son was born in the family of Dominico Columbus. The infant was called "Christopherus" or, more simply, Christopher. Oddly enough, we have no certain proof as to the exact place he was born. Fifteen Italian cities and villages have claimed him as a native son.

Wherever he was born, Christopher was glad to live as a boy near the great harbor of Genoa. Ships were always coming into that harbor and sailors were never tired of telling tales of the sea. We can well believe that he often sat on the knee of some seaman and listened to stories of strange lands.

When only fourteen, he went to sea himself. For the next ten years he spent much of his time sailing the Mediterranean. There is some reason to believe that he was with a band of pirates for a while, but that is not known for certain.

Christopher often spent months on shore. He used his free time to study. During his youth he had learned to read and write. No doubt some of the words in his books were hard to understand, but he kept at them until he knew pretty well what they meant.

What sort of books do you think he read?

They were chiefly about travel, the sea, the shape of the earth. "The Book of Marco Polo" was one of his favorites.

As you know, a few ancient Greeks had figured out that the earth must be "round like a ball." By good fortune, certain of their writings came into the hands of the young sailor. They had been put into Latin, which Columbus could read.

"If the earth is round," he thought, "maybe a ship could get to India by sailing west instead of east!"

With this idea in his brain, he went to Lisbon, Portugal, to live. One of his younger brothers was already dwelling there, making maps for a living.

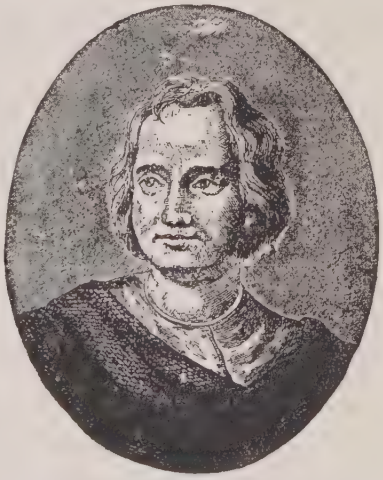
By that time, Prince Henry was dead; but the Portuguese were still busy coasting down Africa's shore. Columbus was engaged as a sailor and made several trips, getting as far south as the equator.

A Fortunate Mistake

While making his headquarters at Lisbon, Columbus was married. The wedding took place before he was thirty years old.

At about that time, Columbus exchanged letters with a very old man in Florence, Italy. His name was Toscanelli and he was a noted map-maker. With one of his letters, he sent a "map of the world."

Columbus studied the map. It was based on the idea of the earth being round. There was one big mistake in it: the earth was made to seem too small. This mistake was a piece of good fortune. It led Columbus to believe that he could reach India by sailing westward only three or four thousand miles. If he had known that India was more than fifteen thousand miles to the west, he would surely have given up the idea of reaching it by sailing that way.



One of the sons of Columbus declared his father's hair turned gray at the age of 30. That was probably due to worry and strain.

A few years after getting the maps from the wise Italian, Columbus made a voyage to the north. He visited England and, probably, Iceland as well. It may be that Iceland sailors told him how Leif Ericson had discovered a land in the

western ocean, several hundred years before. Whether or not he learned that fact, he came back from his voyage with the firm purpose of sailing west "to reach India and the Indies."

He asked the king of Portugal to help him, but was refused.

Leaving his wife and children at Lisbon, Columbus went to Spain and tried to win the aid of King Ferdinand and Queen Isabella. Spanish armies were then busy fighting the Moors, seeking to drive them out of Spain. The monarchs listened, but they said that they could not help "for the present."

This answer made the eager sailor sad of heart, but he remained in Spain for a time, talking of his plans to persons he met here and there. Then he made a trip to Portugal to see his family. He brought his son Diego back to Spain.

The Monarchs Give Consent

For the next few years, Columbus led an uncertain life. A few small sums seem to have been given him from the royal treasury and he is supposed to have spent some time fighting against the Moors. Because of the war, it was hard for him to get another hearing from Ferdinand and Isabella; but at last a duke came to his aid. The duke gave him a letter to the king and queen and they listened again to his plans. Learned men were asked what they thought about it all. Most of them said that Columbus had a foolish idea, but a few took his side.

Again the monarchs were afraid to give a plain "no." Again they replied, "Not for the present." But they added, "Maybe later."

Columbus did not put much faith in the "maybe later." Sick at heart, he decided to go to France where his brother, the map-maker, was trying to interest the French king.

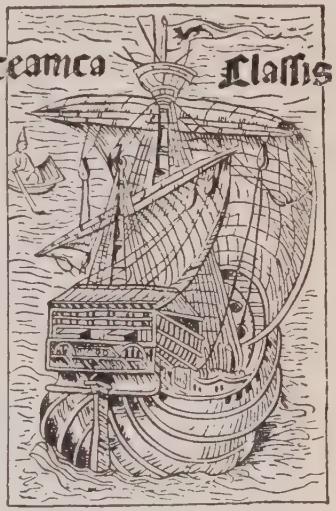
Traveling with little Diego, he found it necessary to beg food on the way. One day he stopped at a convent to ask for bread. There he met a priest who was a warm friend of the queen.

The priest was a kindly man. He talked with the ragged stranger and learned about his plans.

"Ah," said the priest, "you have a grand idea. I know the queen well, for I used to be her confessor. I'll send her a letter and see if she will change her mind."

As a result of this letter, Columbus was summoned back to the court. The queen sent him money so that he could buy good clothes before he came into her presence.

Then came dealings in earnest. At the end of two or three months, an agreement was signed. The agreement said that Columbus should have three ships to sail westward until he reached India. He was to be called "Admiral of the Ocean" and was to get one-tenth of all money made from lands he might discover.



One of the vessels prepared for Columbus. The picture is said to have been made by Columbus himself.

There was a town in southern Spain called Palos, which had given offense to the king and queen. As a punishment, it was forced to pay for fitting up two vessels for Columbus. The cost of the third ship was borne by the royal treasury and two Spanish Jews named Pinzon.

The tale of Queen Isabella "selling her jewels" to help Columbus seems to be a fable, not a fact.

At last, on August 3, 1492, the little fleet left port. Out on the Sea of Darkness, it sailed. Many a sailor's heart quaked in fear.

Crossing the Dark Sea

The crew of Columbus was made up of about one hundred men. They came from many nations. Most of them were from Spain and

Portugal, but one was an Englishman and another came from Ireland. There was a doctor on one ship, but no priest was taken along.

Admiral Columbus was aboard the best of the three vessels, the *Santa Maria*. The other ships were called the *Pinta* and the *Nina*. They were in charge of the Pinzon brothers.

The longest ship was only sixty-five feet from end to end. The others were less than fifty feet in length. What small vessels to venture on the Sea of Darkness!

Columbus and his men steered for the Canaries. Reaching those islands, they repaired the *Pinta* (which had a loose rudder) and took on a new supply of wood and water.

While at the Canaries, the sailors heard tales about "land to the west." It was said that "canes from strange lands" were often washed ashore, along with "the bodies of people of unknown race."

An artist who lived not long after Columbus, made this picture. It is supposed to show the bold admiral aboard the Santa Maria, sailing on the Atlantic. Sea monsters are imagined at the side of the vessel.

Cheered by these bits of talk, the adventurers left the islands on September 6, and continued westward.

Day after day they sailed, always looking for signs of land. And there were "signs" in great number. Birds, patches of seaweed, whales—all these were taken as signs by the fearful but hopeful sailors.

There is a story that some of the seamen at one time planned to throw Columbus overboard. There is no proof, however, that the

story is true. All we can say for sure is that the sailors were sullen and hard to manage.

At last, on the evening of October 11, Columbus thought that he saw lights in the distance, a sign of land. At 2 o'clock the next morning, by the moonlight, a sailor caught sight of the land itself.

A cannon was fired, and sailors who had been asleep sprang up and rushed where they could get the best view. Columbus ordered the ships to cast anchor until the dawn of day.

Natives of the Land

To reach land meant *safety* to every man aboard the three little ships. To Columbus it meant much more. He thought his dream had come true. He thought he had reached an island off the coast of Asia, not far from India. His heart must have beaten with joy and pride as he was rowed toward shore at daybreak.

The sailors peered ahead and beheld a group of people on the beach. As the row-boats came closer, the people turned and fled to a near-by woods.

Columbus landed with his men, and shouted that the land would belong to the king of Spain.

The natives were seen peeping from behind trees at the strangers. In a little while, they began to return with timid steps. Columbus made signs of friendship, and they were soon within a few feet of him.

The skins of the natives were reddish brown, much darker than those of the sailors, but not so dark as negroes. Their hair was not curly or kinky; it was straight and in many cases, long. The people wore little or no clothing, because they lived in a warm climate.

Happily, they were of a friendly nature. As it later proved, they believed that the white men had come down from heaven. They had never seen such ships as the Spaniards used. The sailing-vessels, the white skins, the armor and the weapons filled them with awe.

Columbus wanted to make friends with the natives. He gave them

glass beads, colored caps and little bells. The bells were a delight to the simple "children of nature," who rang them and danced up and down as they heard the sound.

Thinking that he was near India, Columbus called the people "Indians." That mistaken name was afterwards given to natives all over America.

Of course, the "Indians" could not understand the words of the white men. They had to talk by signs. Columbus was often given a wrong meaning by their signs. If he had been able to understand what they said, he might have learned a great deal more about the land he had found.

That land was really one of the Bahama Islands. It lies not far south of Florida. Columbus gave it the name of "San Salvador," which is Spanish for "Holy Savior."

Columbus Returns to Spain

Columbus saw that one of the Indians wore a gold nose-ring, and made signs to show that he wanted all the gold he could get. A few of the natives went to their huts and brought back gold ornaments, which they gave to the white men.

Columbus was not satisfied, and asked for more; but they shook their heads, making signs which seemed to mean: "There are lands not far away which have much gold."

Columbus decided to try to find those lands. Sailing to the south, he discovered another island, but it was not rich in gold, and the ships set out once more.

Island after island was discovered, chief among them Cuba and Hayti. Cuba seemed so large that Columbus decided it must be part of "the mainland of Asia."

From time to time, Indians paddled up to the ships to talk and trade. The chief thing they had to give was cotton yarn. Columbus treated them kindly for the most part; but he seized about a dozen to take back to Spain.

Three months were spent cruising among the islands. Then Columbus ordered his men to set sail for Spain. He had only two ships now, for one had been wrecked. Some of the seamen who had been saved from the wreck, asked to be left on one of the islands, until Columbus went to Spain and came back again. The admiral gave his consent. A small fort was built and the men placed there were told to keep good order.

The return to Spain was made during stormy weather. The ships became separated. During one fierce gale, Columbus feared that his vessel would be wrecked. Hoping to save his secret from the waves, he wrote the story of his voyage, placed it in a small barrel, and cast the barrel into the sea.

Luckily the ship was not sunk. It landed first at Lisbon, Portugal, where the king treated Columbus with honor.

Before long, the vessel left Lisbon and anchored at Palos, Spain, on March 15, 1493, more than eight months after it had left that port. The second ship arrived at Palos a few hours later.

Bells were rung, and the whole town rejoiced. It was as if the sailors had "come back from the dead."

Indians Forced to be Slaves

After returning to Spain, Columbus became "the man of the hour." Everywhere he was honored. The king and queen gave him a grand reception, and he rode in a parade with soldiers on horseback and the Indians he had brought back.

Columbus showed the monarchs bracelets and other golden trinkets from the islands across the Atlantic. He said that much more gold could be obtained, if men and ships were sent across.

Ferdinand and Isabella wanted wealth, and were delighted because they thought Columbus could get it for them.

"Fine!" they exclaimed. "We shall give you a larger fleet and many men. You can prepare to start at once."

About a year after he had first sailed westward, Columbus set out on his second voyage. This time he had seven ships.

Reaching the island of Hayti, the Spaniards looked for the men they had left in the little fort. All they found was ruins, with here and there a dead body or skeleton. To solve this mystery, they asked questions of the Indians. This is the story they heard:

The men were given two or three wives apiece by the Indian chief, but that did not satisfy them. They went out to various parts of the island and stole women and girls. This led to quarrels with the natives. Some of the Spaniards were killed. Others died when they fought among themselves. Still others went to live among Indian tribes.

This story gives a hint of the quarrels which were to arise in later years between white men and red.

Columbus decided to start a large colony on Hayti and to work the mines. He wanted to send gold back to Spain and to become rich himself.

The Indians were forced into slavery. They had to work on the farms of the white men, and Columbus ordered each one to bring him a certain amount of gold.

Hundreds of natives were seized and shipped to Spain to be sold as slaves. 'Twas said that they were to be "made into Christians." Most of the poor fellows died soon after being set to work in Europe.

Disgrace and Death of Columbus

The settlement in Hayti was called Isabella in honor of the queen of Spain. If the Spaniards living there had been kindly, they might have had a happy colony. As it was, they were driven by a greed for gold. They were cruel to the Indians and made them work very hard on the farms and in gold mines.

The poor red men did not like this life. They had been used to the

joys of freedom. They thought that the Spaniards had come from heaven, but hoped that they would soon go back again.

Month after month passed. Still the white men stayed. The Indians tried to revolt, but they were beaten down. They then realized that it was no use to fight, and put a new plan into practice. They quit working in the fields, and destroyed the growing crops and the fruit on the trees. To keep from being killed they fled to the mountains, where they hid themselves in caves and behind rocks.

Indians working at gold mines for their Spanish masters.

The Spaniards gave chase, with guns and bloodhounds. Some of the Indians were caught and killed. Others were starved to death. The rest finally gave up and went back to the dull grind of work.

After spending about three years in and near the colony, Columbus returned to Spain. He saw the king and queen, talked over the needs of the settlers, then returned to Hayti.

Three more years he spent in the New World. More islands were found. Spanish vessels sailed along the coast of South America and reached the Isthmus of Panama. Everywhere, the white men asked for gold. The Indians must have thought that the "sailors from heaven" were mad about the yellow metal.

Queen Isabella took a keen interest in the colony which Columbus ruled. She was sorry that it did not send her more gold, but still she tried to help it along.

Hoping to make up for the small amount of gold he could ship to Spain, Columbus sent load after load of Indian slaves. This displeased the queen, who had a kindly heart and did not like to have the red men ill-treated.

A captain was sent over to Hayti to take charge of the colony. He put Columbus under arrest, and sent him back to Spain in chains.

The proud spirit of Columbus was almost broken by this treatment, but he was forgiven by the king and queen. They let him make a fourth voyage to the new lands. This time he took his son, Fernando, along with him. Fernando was only fourteen years old at the time.

Soon after he returned from this voyage, Columbus died. It was not until long after his death that much honor was paid to his memory.

CHAPTER XLII

VASCO DA GAMA REACHES INDIA

At almost the same time that Columbus set out on his third trip toward America, a great voyage began from Portugal. The plan of that voyage was to go around southern Africa to India. The man in charge was called Vasco da Gama. He was an able and daring seaman, in whom the king had great faith.

With several small ships, Gama left Lisbon in July, 1497. He sailed southward and was soon in the midst of a great fog. The vessels lost sight of one another but all steered for the Cape Verde Islands. There they joined again and took on board new supplies of wood, water and meat.

Vasco da Gama, as pictured by an artist four hundred years ago.

Then it was that "Captain-Major" Gama ordered a daring move. He told his helmsmen to cut right down through the South Atlantic ocean. Before that, the the ships of Portugal had been in the habit of keeping close to the shore. Now the coast was forgotten. It was a battle with the great ocean.

Two weeks passed, and there was no sight of land. One day, a storm arose and one of the large sails on Gama's own ship was badly damaged. It took seventy-two hours for it to be repaired.

Some time later, "signs of land" were seen. There were birds

"which looked like herons" flying overhead, and whales which spouted in the water. That made the sailors feel that land could not be very far away, but land itself could not be sighted.

For three months and a day, they sailed the open sea—then, at nine o'clock one autumn morning, they beheld the coast.

The joy of the crew was perhaps as great as that of Columbus's men when they reached the first Bahama island. As a matter of fact, the men from Portugal had been longer on the ocean. They were so overjoyed that they fired cannon after cannon and decked their ships with flags.

Anchor was cast in a broad harbor, which they called the Bay of St. Helena. The bold sailors had reached the coast of Africa. They were near the southern end of the continent. The North Star could no longer be seen at night.

Gama Reaches India

Vasco da Gama was glad to reach the Bay of St. Helena, but he did not care to stay there long.

"Onward round the cape!" was the order.

The "cape" was none other than the Cape of Good Hope. It had been reached about ten years before by a captain named Diaz.

Soon the ships of Gama were fighting their way around the south of Africa. It was a hard struggle because of heavy storms. Again and again, the wind blew them back, but at last they rounded the cape. Then the little vessels began to sail northward along the eastern coast of Africa. They were traveling where men of Europe had never been before!

Now and then they stopped at a point on the coast to get water and food. Sometimes the natives feared them and either ran away or fired arrows from behind bushes. In other cases, it seemed as if the sailors were meeting old friends.

One spot they called the "Land of Good People." The inhabitants were negroes. They watched in a crowd as some of the Portuguese

came from the ships in small boats. A sailor named Martin Affonso led the landing party. He gave the chief of the negroes a cap, a jacket and a pair of red pantaloons.

Affonso was invited to spend the night at a negro village. He went with the chief, who had donned his new clothes and who seemed to say to everyone he met:

"Look what I've got!"

That night, Affonso was a center of attention. Negroes were all the while coming to look at him. In the morning, he went back to the ships.

The visit to the Land of Good People came in January. The next three months were spent coasting up the shore of Africa until the city of Malindi was reached. There Gama obtained a pilot "who knew the way to India."

Near the end of April, the Portuguese set sail to the east. In twenty-six days they anchored off the coast of Calicut, in southern India.

The dream of Prince Henry had now been realized! India had been reached by sailing around the south of Africa!

It took several days to arrange a meeting with the king of Calicut. After that was done, Vasco da Gama went ashore with three men. He was carried in a litter toward the king's palace, through dense crowds of Indians. Finally he was brought into the presence of the king.

Gama's Presents Are Amusing

The king of Calicut made a sign for his visitors from Portugal to come near him. He ordered that they be given water to wash their hands and some fruit to eat, including ripe bananas. The king looked at the Portuguese as they ate and a smile passed over his face. Then he asked Vasco da Gama what he had to say.

The Portuguese leader replied that he had come from the land of a great king in the west. He said that his king had told him to reach India or lose his head!

The Indian ruler listened politely, and said that his visitors were

welcome. He promised to send ambassadors to Portugal. The captain promised to return the next day, with a letter and presents.

Gama picked out these presents for the king: four red hoods, six hats, four strings of coral beads, six wash-basins, a case of sugar, two casks of oil and two casks of honey. When officers of the king saw the presents, they laughed, saying that the poorest merchant from Arabia gave better gifts. They said that Gama ought to make the ruler a present in gold.

"Alas," replied Gama, "I have no gold with me. But when I come back from Portugal again, I shall bring far richer presents."

Going to the palace with no present at all, he asked to have a visit with the king. He was kept waiting four hours, because he was a day late and the monarch was angry.

Gama tried to cool the temper of the king and succeeded in part. Then he asked to be allowed to trade some of the wares he had brought from Portugal—wheat, cloth, iron and bronze.

"Yes, you can buy and sell," replied the king.

That was the signal for the beginning of trading which lasted, off and on, for almost three months. In return for what they had brought, the Portuguese were given spices and jewels.

His ships well-loaded with rich cargo, Gama gave orders for the return to Portugal. The fleet followed much the same route as that by which it had come. It reached Lisbon at the end of the summer of 1499, two years after setting out on the mighty voyage.

Gama was hailed as one of the greatest sea captains of human history—and indeed he was. His ships were the first from Europe to reach the Orient. Portugal began a rich trade with India, which lasted many years.

The Cabots Reach North America

While Columbus was waiting for the king and queen of Spain to decide about his first westward trip, he received a letter from the king of England, Henry the Seventh.

King Henry told Columbus that "maybe" a fleet could be given him to sail "west to India." If the "maybe" had been a "surely," American history might have been different. As it was, Columbus was tired of "maybe's" and did not care to go to England on a bare chance.

After a while, King Henry heard that Columbus had sailed from Spain and had found land across the Atlantic. I am sure that he then wished he had made a better offer to the sailor from Genoa.

In London at that time lived a family which had come from Venice. The father was named John Cabot. He had three sons, one of them called Sebastian.

John Cabot was a skilled seaman. The idea of reaching strange lands had long been in his head. When he learned that Columbus had "reached India" he was more eager than ever to see what he could do. He sent this message to King Henry:

"England should have a share in the trade of the east. Will you let me sail straight west to Cathay (China), then south to India?"

The king was glad to grant the request, and gave him the right to fit up a fleet of five ships.

In 1497, the same year Vasco da Gama sailed around the Cape of Good Hope, John Cabot reached the coast of North America. He and his sailors were the earliest white men to reach the shores of the northern continent, except for the Northmen who had come almost five hundred years before.

The coast of Labrador was reached first. Then some time was spent coasting down the shores of what is now the United States.

Sebastian Cabot appears to have been on this voyage. In later years, he became perhaps even greater as a sailor than his father. For many years he was in the service of England. He is said to have sailed English ships as far south as Florida and as far north as Hudson Bay. His efforts to "find India" were of no avail, but he helped give England a claim to land in North America.

How America Was Given Its Name

America received its name from the name of a man—Americus Vespucius. He lived at the same time as Columbus and Vasco da Gama, and was a good friend of Columbus.

Americus Vespucius landing on a foreign shore, as pictured by an artist of his times.

Vespucius was born in the city of Florence, in northern Italy. He was the third son in a noble family which had "lost its money." When he had grown to manhood, Vespucius left Italy and moved to Spain. There are reports that he went on one or two of Columbus's trips to the New World, but these reports may not be true.

We know, however, that Vespucius visited the coast of South America in later years. He was then in the service of Portugal and explored the coast of Brazil for his foster-country. Vespucius had some interesting adventures getting to Brazil a second time. He was captain of one of the ships in a fleet of six. A short distance south of the equator, one vessel ran on a rock near an island. The admiral ordered Vespucius to look for a good harbor in the island while the other ships were saving the crew from the endangered vessel.

Returning to the wreck, Vespucius found only a single ship left, out of five. The one on the rocks had sunk, and the other three had sailed away and were never heard of afterwards.

The two remaining ships sailed westward toward Brazil and anchored in the Bay of All Saints. After remaining there two months, they sailed south along the coast of South America for a distance of almost a thousand miles. This long coast trip made Vespucius feel

sure that he was on the shore of a continent, rather than an island. He made maps of the bays, rivers and harbors.

Returning to Europe thirteen months later, he was given work as a map-maker for the government of Spain. The maps made by Americus Vespucius were thought to be very good. They were copied and put in different books. A German tried to think of a good name for the continent below the equator. He decided that "America" would be the best. Other writers liked the idea. They called the new land in honor of Americus, or "Amerigo," as he sometimes spelled his name.

Later on, America was found to be two continents, which were called North and South America.

CHAPTER XLIII

THE FIRST TRIP "ROUND THE WORLD"

We shall now hear the story of Ferdinand Magellan, who was probably the greatest sea captain that ever lived.

When Magellan was about nineteen, Vasco da Gama came back from the first ocean-trip to India. Somewhere near the time of that event, Magellan took to the sea as a trade. He went into the service of the king of Portugal. The young sailor proved his worth, and was sent around southern Africa, toward Asia. He visited the Spice Islands, not far from the coast of China.

As time went on, Magellan began to feel that he was not getting enough reward for his work. After this feeling had grown to the bursting point, he declared:

"I am going to quit serving an ungrateful king. I shall leave Portugal and go to Spain."

So it was that Spain obtained the services of the brilliant seaman. Charles the Fifth was then on the Spanish throne.

"Let me try to reach the Spice Islands a different way," said Magellan to the king. "It is too far going around Africa. If you will give me a fleet, I shall sail it westward. We'll sail south of America, then across the ocean to the Spice Islands and Asia!"

King Charles agreed to this daring scheme. Five ships were fitted out and Magellan left the shore of Spain near the end of summer in the year 1519. On board were more than two hundred men gathered from all over Europe. Most of the sailors came from Spain and Portugal, but others were from Italy, Greece, France and Germany. There was also an Englishman in the lot. One of the Italians was named Pigafetti, and he kept a careful record of what happened during the voyage.

Land and Friendly Indians

The fleet of Magellan was stocked for a long trip. Among the items of food were pork, beans, peas, flour, cheese, prunes, honey and rice. Some casks of wine were also carried, not to speak of garlic, vinegar and mustard.

Yes, there was a big supply of provisions; but the day was to come when food would be so scarce that rat-meat would be welcome!

The first stop was at one of the Canary Islands. The little fleet lay at anchor for five days, taking on a new supply of wood and water and then sailing to the southwest.

In a few weeks, the vessels reached a point near the equator. The weather became rainy. Day after day, the heavens poured water upon the sailors from Europe, as if wishing to drown them.

The next period was full of windy weather. The gales blew so hard that all the sails had to be taken from the masts, lest the ships should be blown over.

Now and then it became calm, and clouds did not hide the sun. At such times, the sailors amused themselves by watching the big fish which swam close to the vessels. These were chiefly sharks. Some of them were caught with iron hooks, and eaten.

At last good winds came once more. The coast of Brazil was reached. On shore were a great many Indians who wore little or no clothing. They received the white men kindly and gave them all sorts of food to eat. In return, the sailors gave knives and trinkets.

The Indians were still living in the Stone Age. You can imagine how happy they were to get knives made of metal instead of stone! In exchange for a knife, they were glad to give five or six chickens. For a comb, they were willing to give a pair of geese, and for a bell a basket of turnips. One sailor gave an Indian a playing card (the king of diamonds) and received as payment six chickens!

The Indians had many tame parrots, and would trade eight or ten for a single mirror.

Brazil, Cannibals and Winter Quarters

Magellan and his men stayed on the coast of Brazil for thirteen days. The Indians kept on being friendly to "the white gods from the clouds."

The sailing ships were objects of special wonder. The red men knew how to make "dug-out" canoes from tree trunks, but they had never beheld such vessels as were now before them. They saw row-boats putting off from the sides of the ships; and are said to have believed that the big boats were mothers, and the little ones children.

It was pleasant for Magellan to be in the midst of such friendly people, but he gave the order to "sail on."

Some distance down the coast of South America, the fleet anchored off the mouth of the Plata River. The people of that region were supposed to be cannibals. They ran when they saw the white men coming.

The next stop was at two islands, which swarmed with penguins, queer-looking birds which cannot fly. (They dive for fish for a living.) The penguins divided interest with seals, which swam and jumped and barked in the cool sea water.

The weather had become very cold, and a good harbor had to be found until the warm season should return. Such a harbor was located within a few hundred miles of the southern tip of South America. The ships came to anchor and many of the men went ashore.

Two months passed and not a single native was seen! Then came a day when a man of huge size was spied on the beach. He was dancing up and down, singing, and throwing sand on his head. Magellan ordered one of his sailors to approach the savage, doing the same things as a sign of friendship. The sailor obeyed, and was able to get close without giving fright.

A short talk by signs was held with the strange savage. Other members of his tribe soon appeared. The white men gave them the name of "Patagonians." That meant "men with big feet," and was applied because of the large rough shoes, stuffed with straw, which they wore.

Fighting with Starvation

Some months were used up in getting to the southern end of South America. One of the ships was wrecked along the coast. All the men were saved, but now only four ships were left in the fleet.

By and by, Magellan came to a body of water which looked like a bay. He thought it might be the beginning of a strait, and hoped he could now pass to the "South Sea," which Balboa had found a few years before.

Two ships were sent in advance to explore. A fierce storm arose. Several days passed, and it was feared that the ships ahead had been wrecked. Sorrow filled the hearts of the sailors, but suddenly the "lost" ships came into view. They fired cannon, which was a signal of good news—a strait had really been found!

Magellan gave the order for his fleet to sail through the strait. Three ships obeyed, but the pilot of the fourth turned his vessel around and it was sailed back to Spain. The remaining ships passed into the great ocean now known as the Pacific.

If you will look at the Pacific on a map of the world, you will see what a tremendous space it covers. The bold, brave men on the little ships from Spain now began to sail across it, in a northwesterly direction.

Day after day passed, week after week. The winds were good, but the water seemed to contain no land—except for two small desert islands, which were of little help.

Food became short. There was biscuit to eat, but it was so old that it had turned to powder and was wormy. The water was yellow and stale with age. Prizes were offered for any man who might catch a rat for the dinner-table. Soon rats became "as scarce as hens' teeth."

One day, someone thought of getting value from the ox-hides which were used to keep the sails from chafing against the masts and yard-arms. The hides were taken down and dragged in the sea for four

days, to make them soft. Then they were dried, cooked over an open fire, and eaten!

Each sailor wondered, "Are we doomed to starve to death?"

The "Islands of Robbers"

If storms had swept the Pacific, Magellan's vessels might have been wrecked, and the great voyage spoiled. As it was, the weather proved splendid. Both winds and ocean were kind to the bold men from Europe.

A fight between white men and savages is shown in this picture. The advantage of gunpowder is easy to see. The warriors of the "Robber Islands" were not hard to defeat.

Seeing how gentle were the winds, and how small the waves, Magellan gave the ocean its name of "Pacific," which means peaceful.

It was all very well to be blown in a steady course, over a peaceful ocean—but when would it end? When would land and food be found? Hunger gripped the men, and they found it hard to do their daily work.

Three months had passed since they had left South America. There was still no welcome land. Another week dragged by, and still another. Hunger gnawed worse than ever. Three days more, four, five—and then lo! the sixth!

Land was in sight, real land!

Soon the ships were anchored in the midst of three islands. The sailors quickly landed and obtained fish, cocoanuts and bananas.

The people of the islands had lighter skins than Indians. They were fairly pleasant to meet but had one great fault—they would steal

whatever they could lay their hands on. If they visited a ship, many things were sure to be missing afterwards. The sailors were made very angry when one of their small life-boats was stolen. This event led to a battle in which cannon were fired and the life-boat was regained.

Magellan called the people "Ladrones," which means "robbers."

Meeting Natives of the Philippines

The Ladrones could not speak Spanish, English or any other language of Europe. To make the white men understand, they had to use signs. By some of their signs, it seems that they said:

"You white men are a great surprise to us! We thought *we* were the only people in the world!"

After spending a few days amid the islands, Magellan gave orders for his fleet to sail onward. About a thousand miles to the west, the shores of two more islands were sighted. They were members of the Philippine group.

Magellan landed on one of the islands with some of his men and set up tents. For almost two days, no people were met. Then a boat filled with nine savages came toward the shore. They showed signs of gladness over meeting the white men.

Magellan gave his visitors red caps, mirrors, combs and bells. It was not long before they returned the courtesy with presents of fish, bananas, cocoanuts and a jar of wine made from palm juice.

Magellan took the natives aboard one of his ships and showed them pepper, ginger, nutmegs and gold, hoping that they might show him where to find more. Cannon were fired as a treat for the natives, but they were so frightened that they tried to jump out of the ship. Their fears were calmed, however, and they left quietly, saying they would return.

True to their promise, they came back in a day or two. Again they brought presents: cocoanuts, wine, oranges and a cock.

After nine days spent in this region, the three ships set sail again.

It was decided to anchor near another island of the Philippine group. In a short while, a boat with eight men came out from shore. It was paddled to the side of Magellan's own ship. The men were brown-skinned, like other natives of the island group. They feared to come aboard, but Magellan tied a red cap and some trinkets to a piece of wood and tossed all down to them.

The natives seemed well pleased, and went back to shore. In a short while, they returned with another boat, containing a "king" or "head-chief." He was the ruler of several tribes.

Magellan soon made friends with the head-chief, who offered to give him a bar of gold and a basketful of ginger. The offer was not accepted. For once, white men were able to refuse gold! But perhaps Magellan only wanted to pretend that he did not care for such things, so that the natives would later trade them for less.

The next day, a man was sent ashore to ask the head-chief for food. The request was granted and soon the sailors were enjoying rice and fish. The head-chief himself came on board with the load of food.

The Death of Magellan

Magellan gave the head-chief a red cap and a gown made of red and yellow cloth. To other natives, he gave knives and mirrors. All the brown-skinned men went ashore feeling that they had been well-treated.

Some days later, the fleet sailed to an island called "Zubu." Presents were traded with the natives, and this was the beginning of a strong friendship. The head-chief said that he wanted to become a Christian, with all his subjects. Some of his under-chiefs did not like the idea, but Magellan told them that they must obey their ruler or be killed.

So it was that scores of the natives were baptized as Christians. They were told to burn all their idols, or images of gods. The wife

of the head-chief was given a little wooden image of Jesus, which she prized greatly.

After that, mass was said on shore each morning. One day, the head-chief's wife came to the open-air church in great pomp. In front of her walked three maids, each with a hat belonging to the mistress.

A short while later, the chief of a near-by island asked Magellan to help him fight against certain enemies. That chief had sent the sailors food, so Magellan made ready to go to his aid with sixty men.

Because of their guns and armor, the sailors thought they would have an easy time beating a tribe of savages in battle. The event proved to be very different. From the very first, the white men had a hard time of it. More than a thousand savages were on the other side. They seemed to aim their arrows at the enemies' legs, which were not guarded by armor. Even the powder and ball of the white men's muskets did not scare off the bold savages.

Magellan was shot in the right leg with an arrow. He kept on fighting, but ordered his men to retreat slowly toward the boats. Instead of moving slowly, all except six or seven broke into a run. This left the leader in a hard position—with only a handful of men, he had to try to stand off a host of savages.

Before long, Magellan was wounded in the face with a bamboo spear. A moment later another spear struck him in his right arm. Still he fought, until, at last, a native struck him in the left leg with a cutlass. The blow was too great. The brave leader fell face downward and soon was dead.

The death of Magellan brought sorrow to every sailor left alive. He had been the hero of all, and now it was sadness itself for him to be killed when the hardest part of the trip "round the world" was covered.

With sorrowful hearts, the white men sailed away from the Philippines. Before leaving, they burned one of their ships because they did not have enough sailors to take care of it. That left only two ships in the fleet.

The Victoria Rounds the Cape

For several months after Magellan was killed, the two vessels cruised among the Spice Islands. The natives were friendly and it was easy to trade with them.

The "Victoria," one of the two vessels which sailed away from the Philippines. It was the only one of Magellan's ships that ever got back to Spain. The winged figure at the front was put in by the artist, out of his imagination.

You know what the white men had to "sell"—mirrors, ribbons, knives and so on. In return, they received spices, chiefly cloves.

At one island a group of sailors went to see the king. They were taken on the backs of elephants to his palace. The king was in the midst of three hundred foot-soldiers, all with drawn swords. He was a rather stout fellow, about forty years old. He had ten "scribes" near him, to write down the things he did (or said he had done).

The sailors told the king that they had come from Spain and wanted to be at peace with him. They gave him presents and received in return gold-colored cloth and silk. A feast was set before them such as they had never had before; rice (eaten with golden spoons), fish, wine and thirty-two kinds of meat and poultry.

The trading with natives went on in good shape. Besides cloves, the white men were given nutmegs, cinnamon and sandalwood. At last they ran out of trinkets and cloth. They were so anxious to get more spice that several sailors even took off garments they were wearing, and traded them for cloves. By and by it was learned that the ships were too heavily laden, and part of the cargo was thrown overboard.

One of the ships left in the "fleet" was called the *Trinidad*. The other was the *Victoria*. The white men prepared to leave the Spice

Islands, but the *Trinidad* sprang a leak. Two days were spent in trying to repair the vessel, but it was seen that it would be a long job.

To take advantage of good winds, the *Victoria* sailed out of the harbor alone. The *Trinidad* and her crew were to follow as soon as possible.

A man called "Del Cano" was chosen as the captain of the *Victoria*. He steered the ship past many small islands, then southwest through the Indian Ocean.

At the southern end of Africa is the Cape of Good Hope. That cape does not deserve such a fair name, for it is one of the worst capes on earth. Hardly ever is it without a driving storm.

The *Victoria* reached the Cape of Good Hope, then met with stormy weather. Try as they might, the sailors could not get ahead. Week after week passed. They began to fear that they would never see Europe again.

Two months were spent battling the sea. Then came the day when all could breathe freely again: the cape was rounded!

The End of the Great Voyage

After sailing around the south of Africa, the little ship *Victoria* struggled bravely toward the north. A fresh supply of food and water had been taken on from the southern coast of the continent, but now the sailors were far from land. They needed to reach a safe harbor before supplies gave out, or else they would die.

Good winds aided them over the South Atlantic, but food was becoming more and more scarce. The sailors grew weak and sick. Twenty-one died before the Cape Verde Islands were sighted.

Now came the thought:

"Do we dare go into harbor? These islands are in the hands of the Portuguese. If they find out that we have been getting trade in the Spice Islands, they may kill us."

In spite of this danger, Captain Del Cano decided to anchor his ship. It was better to risk bullets than to starve to death. A boat

was sent ashore with some goods from the ship. In exchange, two loads of rice were sent back. The third time the small boat went ashore, it was seized by the Portuguese with its thirteen men.

Here we see "the world" as drawn on a map made some years after the ship "Victoria" returned to Spain after its trip around the earth. The map makes the error of joining North America to Asia, but in other ways, it is fairly good.

The captain of the *Victoria* thought that it was high time to leave that region, and the ship set sail for Spain. On Sept. 6, 1522, the harbor of San Lucar was reached. That was the same port which it had left three years before. By sailing westward, it had gone clear around the world. *The roundness of the earth was proved.*

Only eighteen men were aboard the *Victoria* when it returned to Spain. Almost all were sick, but I am sure that they were happy anyway. They had done what men had never done before. They were heroes, and their deed would ring down the ages.

The ship left in the Spice Islands never reached Europe, but a few of its sailors managed to get back to Spain some months after the *Victoria.*

CHAPTER XLIV

THE LIFE OF MARTIN LUTHER

When Columbus set out on his first trip toward America, there was an eight-year-old boy in Germany named Martin Luther. I am sure that he had never heard of Columbus; perhaps he did not even hear of him for years after 1492. News traveled slowly in those days, and, besides, schoolboys in small towns were not likely to hear much of what went on in the great world.

If Martin did hear about Columbus "reaching India," he probably gave little thought to the matter. What he cared about was learning his lessons. His hardest study was Latin. When he failed to learn it well, his teachers gave him a whipping. On a single day, he later declared, he was whipped fourteen times.

School was not the only place where he was whipped. Home was almost as bad. Both his father and mother handled "the rod" harshly. The boy shuddered wherever he went. One day he took a nut from the family supply. His mother caught him and gave him such a beating that the blood flowed.

When Martin was thirteen, he was sent to a near-by town to attend a different school. He must have been glad to escape from his home village. At the new school, he spent only a year, then went to the town of Eisenach where he passed some of the happiest months of his life. At first he made a living by begging on the streets. Sometimes he sang songs, hoping that people would give him money as a reward.

One day a woman named Cotta heard him sing. She took a fancy to him and asked if he would like to live in her home. Martin accepted. Mrs. Cotta was kinder to him than his own mother.

Reaching the age of seventeen he left Eisenach and went to study at the University of Erfurt. He proved to be a fairly good scholar, and might have become a lawyer, but a turning-point came in his life. He decided to become a monk!

As the story goes, he was caught in a storm. The thunder and lightning filled him with fear. He stretched out his hands to heaven, crying:

"Oh, St. Ann, save me from this storm! If you do so, I shall become a monk!"

The lightning did not kill him, and he made ready to fulfill his promise.

An Attack on "Letters of Grace"

Luther was twenty-one years old when he decided to become a monk. After a year as a "novice" he joined the order of St. Augustine. He vowed that he would be poor all his life, and that he would never marry.

Before he had been a monk very long, he was sent to Wittenberg, to teach at a university. His chief work there was to give talks about the Bible and what it meant.

One day there was a stir in the little college town. People came back from a neighboring village, and said:

"Oh, look what we've got! These are 'letters of grace.' We received them from Father Tetzel. They are signed by the pope and will help souls in purgatory. They will help us, too, for they wipe away the results of sin."

When asked how they had obtained these letters, they replied: "We have given money to Father Tetzel for the building of a church at Rome."

Luther sometimes heard confession. Certain persons handed him "letters of grace," but he shook his head saying:

"These papers won't help you get rid of the bad effects of sin."

The letters of grace set him thinking of how he might make a public talk or "debate" on the question. In those days, it was a custom for anyone who wanted to debate to tack a piece of paper to a church door. On the paper, he told what he wanted to speak about. Luther decided to follow this custom; but he wanted to debate more than

one thing. Sitting down at his table, he began to write out the points he had in mind. When he counted them up, he found that there were ninety-five!

Taking what he had written to his church, he tacked it on the door so that everyone could read. His points were called the "ninety-five theses," which meant ninety-five subjects for debate.

Most of Luther's points were about souls in purgatory and letters of grace. He had his theses printed and sent them to friends in different parts of Germany. People wondered what the pope would think about it all.

Luther Asks for Pardon

After Luther's friends learned about the "ninety-five theses" tacked on the church door, they were afraid that he would come to harm. They thought that he might even be burned at the stake as a "heretic."

Luther waited in fear. The man who first replied was Father Tetzel, the priest accused of "selling" the letters of grace. In making a speech to three hundred monks, he said that Luther had made a big mistake, and that the pope had a perfect right to give out letters of grace. The words of Father Tetzel were printed, and thousands of copies were sent to different parts of Germany. Some of Luther's students got hold of a bundle of about eight hundred copies, which they took to the market place and used for a bonfire.

Luther feared that this action might bring him to harm and said that he did not have anything to do with the burning. Some people suspected him of telling the students in secret to make the bonfire.

The pope was asked to do something against Luther, but did not accept the advice right away. Luther was called "a drunken German who would know better when he became sober." Before long he decided to write a book. With humble words he addressed it to Pope Leo the Tenth.

The pope read the book. Perhaps he thought that the humble words at the beginning were all very well, but he did not like the main

part. The book was an attack on letters of grace. It also said that the pope ought not have so much power as he claimed. Soon Luther received an order from the pope to come to Rome within sixty days. Luther was afraid to go, because he feared that he might be put to death.

At this point, Prince Frederick of Saxony came to the aid of the bold priest. He told the pope that Luther ought to be put on trial in Germany instead of at Rome. The pope agreed, and Luther was called to the German city of Augsburg. There he was asked questions by a cardinal, sent by the pope. The cardinal did not like Luther's replies, and told him to "take back" all he had said. Luther would not do that, but he did send a letter to the cardinal, saying:

"I am sorry and I beg pardon. I promise not to talk about letters of grace any more, unless my enemies say something else against me."

The cardinal was not satisfied with this letter. He wanted the priest to admit himself wrong in every way.

Luther feared that he would be seized and punished. Under cover of night, he escaped from Augsburg on horseback. In two days, he was back in Wittenberg, safe for a while at least.

A Willing Castle "Prisoner"

After returning to Wittenberg, Luther spent his time quietly. He gave talks to his students, and said mass as usual.

A few months later, he took part in a debate against a noted priest. The debate was largely about the power of the pope, and Luther repeated his charge that the pope was claiming too much control over church affairs.

Partly as a result of the debate, the pope wrote a "bull" against Luther. This was an order saying that he must take back all he had said, or else be put out of the church.

Instead of obeying, Luther took the pope's order to a certain part of town to burn it. In the sight of some of his students, he cast it

into a bonfire. He said later that he trembled with fear as he did so.

The pope ordered him to leave the church for good and all. Luther was then forced to face trial at the city of Worms. He was asked whether he had written twenty books and leaflets which were named to him. He admitted that he had written them. Then he was asked if he would admit that he had been wrong.

"No," he replied, "not unless I am proved wrong by the Bible or by reason."

As a result of this trial, he was declared an "outlaw." The emperor might put him in prison, or sentence him to death. Before coming to Worms, Luther had been promised freedom for at least a certain number of days. He now made haste to leave the city. On his way to Wittenberg, he was seized by a group of knights, who took him to a castle and kept him prisoner.

Although a "prisoner" in one way, he was free in other ways. He had been seized by order of his friend, Prince Frederick. The prince wanted to keep him out of the reach of the emperor.

Luther stayed at the castle in disguise. He pretended to be a noble, and spent most of his time riding horseback and engaging in sports.

During other hours of the day, he worked at making a German edition of the Bible. He studied Greek and Latin Bibles, then translated them into German. His Bible was printed and soon became famous throughout the country.

After remaining at the castle about a year, Luther asked to be set free. The prince granted his request, and he returned to Wittenberg.

Marriage to a Former Nun

For one reason or another, Luther was not seized by either emperor or pope. This was partly because he had many followers in Wittenberg. Another reason was because he was a friend of the powerful Prince Frederick.

Here I must tell you an unhappy fact about Luther: he took the

side of princes and nobles against the common people. The German farm-workers had been ill-treated for hundreds of years. They started a fight to win freedom. Luther used his power to work against them. He said that they ought all be killed for daring to fight their masters. The farm-workers were put down and returned to their old slavery for the land-owners.

At about this time, Luther began to speak of the marriage of priests. He declared:

"It is wrong for priests to be kept from marrying. They have the right to marry, the same as other men. Monks ought to be able to marry, too."

Soon after speaking these words, he received a letter from a group of nuns. They said that they would like to leave their convent. Luther helped arrange for them to run away. The night before Easter, in the year 1523, the escape took place. Twelve nuns were loaded into a wagon and taken to Wittenberg.

Among the nuns was one called Catherine von Bore. She fell in love with a young man named Jerome Baumgartner, but his parents would not let him marry her.

Later she told Luther:

"There is a man named Caspar Glatz in your university. He wants to marry me, but I do not like him well enough for that. I would much rather marry you or your friend, Amsdorf."

Luther asked her to be his wife.

They were married secretly, but friends heard about it and asked for a public wedding. Two weeks later, such a wedding was held in the Wittenberg church. Among the guests were Luther's father and mother.

The Lutheran Church

Long before Luther began to quarrel with the pope, there had been men in Germany who had broken away from the Catholic Church.

Among these were the followers of John Huss. They had started churches after their leader had been burned at the stake.

Besides the Hussites, there were great numbers of others who were not quite satisfied with the religion of their forefathers. They were waiting for something a little different. Martin Luther lived in time to lead them upon a different path. After he had himself been forced out of the Catholic Church, he started a church of his own. It was not greatly different from the older religion. Perhaps the main change was that German was used during the service instead of Latin. Besides, the Lutherans (or followers of Luther) were allowed to take both wine and bread during communion, instead of only bread as before.

It was Luther's good fortune that he was protected by princes and other powerful nobles. They guarded him from the German emperor. In the parts of Germany where these nobles ruled, many Lutheran churches were started.

Luther died at the age of sixty-two. He was buried in the church where he had tacked up the ninety-five theses.

Followers of Luther protested against an order of the Catholic emperor of Germany. Because of their protest, they were called "Protestants." Members of the other creeds which sprang up, also came to be known as Protestants.

CHAPTER XLV

JOHN CALVIN AND DR. SERVETUS

We shall now begin the story of John Calvin and Dr. Servetus. It is a rather sad story, and I am not altogether happy in telling it; but it will help give us an idea of the time of the early Protestant church.

Calvin was a Frenchman, born in the city of Noyon. When he was fourteen, his father sent him to Paris to study at the university. The youth began to learn about the church and the Bible. He was planning to become a priest. Three years later his father said to him:

"I have changed my mind. I do not want you to be a priest. You should become a lawyer."

Obeying the father's wish, young Calvin changed his plans. He went to the University of Orleans, and began the study of law. This subject seemed to fit well with his abilities. He was given high honors by the college professors.

Leaving Orleans at the age of twenty-two, he went to Bourges and spent a year studying at the university there. After that, came the really important part of his life—he began to think about the Protestant movement. Luther was alive at the time. Calvin did not meet him, but read some of his books. He also spoke with men who believed what Luther taught.

In telling about this period in his life, Calvin later said:

"I kept feeling more and more that I was living in a state of sin. I tried to get rid of this feeling by going to confession and by doing penance. It was no use. I was filled with dread."

The result was that he became a heretic. That means he quit believing some of the things taught by the Catholic church. Going to Paris, he began to preach what he believed. One day, he heard that he was in danger of arrest. He jumped out of the window of his room, and fled beyond the city limits.

Putting on the clothes of a farm-hand as a disguise, he set out for the town of Nerac, where he expected to find protection.

Halted in the City of Geneva

When Calvin reached Nerac, he was given shelter by a priest named Du Tillet. This priest had a library of three thousand volumes, which his guest was allowed to use.

A year later, Calvin went back to Paris. He thought that the trouble about religion had "blown over," but found matters worse than ever. Protestants were being punished on every hand.

Fearing to be caught, he fled from France on horseback. After riding over many a "hill and dale," he reached Switzerland, and lived for a while in the city of Basel. There he wrote a book called "The Institutes." It told about his views on the Bible and the church, and later became famous throughout Europe.

Leaving Basel soon after finishing this book, Calvin made his way to Italy. He was befriended by the wife of a duke and did a good deal of preaching. The duke, however, drove him out of the country.

After leaving Italy, Calvin tried to get to Strasbourg, but his trip came to a halt at the Swiss city of Geneva. He meant to spend only a single night there, but while he was at a simple little hotel, he had a visitor. That visitor was William Farel, a Protestant preacher. Farel was the chief man in Geneva, but he was having trouble making things run smoothly. He had heard about Calvin and wanted him to help run the city.

Calvin did not like the idea.

"No, no!" he said. "I must go to a place where I can have peace and quiet."

Farel's will was strong, and he did not wish to take "no" for an answer. Looking fiercely at the other man, he cried:

"If you refuse to do this work, God will curse you. It is your duty to stay here and preach."

Calvin later declared that these words filled him with terror. He agreed to stay in Geneva.

For the next two years, Farel and Calvin ruled the city. They used an iron hand in making people "be good." Everyone was told to go to church. People were forbidden to dress except in a certain way. Dancing was stopped.

Many persons were angered by these laws. They held meetings of protest. Calvin and Farel were driven out of the city.

A Doctor Writes a Book

Calvin made his way to Strasbourg. Friends in that city told him that he ought to marry, and he replied:

"I will marry if I can get a proper wife. She must be modest. She should be humble and know how to save. I do not care much about beauty, but she must be ready to take good care of my health."

Before long, he found a woman who answered his wishes. Her first name was Idellette. She was a widow and had two children. She proved a faithful wife during the six years she lived after her second marriage.

The people of Geneva were now having trouble. Some of their leaders were sorry that Calvin had been driven away. A message was sent asking him to come back. He accepted and was soon at work trying to set the city "in order" once more.

At that time in France there lived a man who was destined to play a part in the life of Calvin, a sad and dreary part. His name was Michael Servetus.

Servetus was born in Spain. His father gave him a good education. For several years, he studied the Bible and came near to becoming a priest. He changed his plans, however, and studied law and medicine.

To make a living, he decided to be a doctor. He went to France and settled in a small town. Soon he had a good many patients, for he was a skillful doctor. He knew more about the blood than any

other man of his time. He found out that the heart pumps the blood into arteries. He also learned that the lungs help make the blood pure.

If Servetus had kept his mind on his work all the time, he would have been a fine doctor, but we might never have heard much of him. The thing that put him in public notice, was a book about religion.

Dr. Servetus did not believe certain church teachings, and decided to write about the subject. Fearing that he might get into trouble, he had his book printed in secret. A press was put in a private house, and only a few men were allowed to do the work of "setting type." Three months were used in turning out a thousand copies.

Servetus did not allow his name to appear in the book, but he made the fatal error of putting his initials at the end. These letters later on helped to "give him away."

The thousand books were tied up in bundles and sent to different parts of Europe. One volume fell into the hands of John Calvin. He noticed the initials and guessed that Servetus was the author.

The Book Brings Death

John Calvin read the book of Dr. Servetus with anger. It said that Jesus had not risen from the dead. It also said that people should not be baptized until after they had grown up and could know what was happening to them.

These ideas seemed terrible to Calvin. He declared that the author ought to be put to death. It appears that he caused a friend of his to send a letter to the town where Servetus lived. In this letter, Servetus was denounced as a heretic.

The doctor was placed on trial before a church court. He was condemned to die and was put in prison until the sentence could be carried out. One day he jumped from the prison terrace garden to the roof of a shed, then to the ground. Fleeing from the town, he set his face toward Switzerland. He intended to pass through that

country and get to Italy. Soon he obtained a horse and galloped to a village a few miles from Geneva.

Servetus decided to enter Geneva and remain for a visit, learning how things were getting along under Calvin's rule. He thought that no one would know him, but wanted to be careful anyway. Going into the city on foot, he took up lodging in an out-of-the-way house. He remained there almost a month. Nobody knew him, for he gave a name that was not his own. Then one day he dared to go into a church. Calvin, who had met Servetus many years before, happened to come into the same church. Gazing at the stranger, he said to himself:

"Aha! This must be Michael Servetus. I shall have him arrested."

The doctor was seized and put in prison. Before long he was placed on trial. The book he had written was used to prove him a dangerous man. Calvin acted as a lawyer against him and he was found guilty. By order of the court he was put to death. Some of his writings were burned at the same time.

Calvin remained the chief man in Geneva for many years. He kept a strict watch on the people and tried to make them do as he thought best. Some citizens looked upon him as a wise leader; others feared him.

In the year 1903, a group of "pilgrims" walked out of the city of Geneva. They were members of a church Calvin started. Going to the spot where Servetus died, they fell on their knees and prayed. They asked forgiveness for the court which had put the doctor to death three hundred and fifty years before.

CHAPTER XLVI

HENRY THE EIGHTH AND HIS TIMES

While Luther and Calvin were doing their preaching, England was ruled by a king known as Henry the Eighth. Let us, for a moment, go back into the life of that king, to a time when he was only a baby prince.

Little Prince Henry was not alive long before he began to receive honors—and money. When he had been in the world only ten months, he was made Constable of Dover. Can you imagine an infant acting as constable? Of course, he was not supposed to do anything. Someone was hired in his place. He was given the office because it brought in a good deal of money. His father liked to keep money "in the family."

At the age of three, the prince was made Lord-lieutenant of Ireland. Six weeks later, he was created a Knight of the Bath and a Knight of the Garter.

In spite of all these early honors, Henry managed to grow up. His youth was filled with studies and out-door sports. He was bright at his books, and a good hand in games of strength.

While Henry was still a boy, his elder brother Arthur was married to a Spanish princess named Catharine. She was the daughter of King Ferdinand and Queen Isabella. She came to England when she was fifteen years old. Her husband was the same age. They enjoyed only a few months of life together, however, for Arthur died.

In those days, it was a custom for a princess to bring a dowry to her husband. King Ferdinand had promised a rich dowry for his daughter, but had paid only part of it when Arthur died. The Spanish king then sent word that he would pay no more, and asked to get back what he had already paid.

King Henry did not care to lose the dowry money, so he began to think of letting his second son, Henry, marry the princess.

Prince Henry liked Catharine and did not mind marrying her, but there was a trouble in sight. A church rule said that no man could marry his brother's widow. The English king asked the pope to set aside this rule, and the pope granted the favor. At about this time the king died. One of his death-bed requests was for his son to hasten the wedding with Catharine.

The prince was made king, and was called Henry the Eighth. A few months after his father's death, he married Catharine. He was then eighteen years old and she was twenty-three.

May Day in Old England

For some years after he had been made king, Henry spent most of his time feasting, hunting and having a good time in general. Sometimes he took his wife with him on pleasant trips to the country. Such a trip was likely to come on May Day, the first day of May.

There was a custom in those days for young women to wash their faces in *dew* on the morning of May Day. That was supposed to make them beautiful. Indeed it did help: for it lent color to their cheeks, and this color was kept the rest of the day, during lively games and sports.

The night before May Day, bands of men were in the habit of going to the woods near London. They would cut down green boughs and shrubs and would get the May pole ready.

The May pole was a huge affair. Forty pairs of oxen were used to draw it through the streets of London. The oxen had little bouquets of flowers tied to the tips of their horns. The pole itself was covered with blossoms and leaves. The people who watched it pass, were dressed in their gayest clothes. Many held boughs in their arms.

The May pole was sure to be followed by a surging crowd of men, women and children. It was set up in a churchyard and was so tall that it towered above the church. The people joyfully danced around it, played games and sang songs.

One day Henry the Eighth and his queen went to the country on May Day. Suddenly they caught sight of a band of men dressed all in green. They carried bows, arrows and spears. The leader came to the king and said:

"I am Robin Hood, the chief of this band. Would you like to see my men shoot?"

"Yea-hoh!" replied Henry. He knew that Robin Hood was dead

A picture of the king and queen in the midst of the "outlaws."

long since, but he liked to see men shoot with the bow-and-arrow, and here he saw a chance.

The leader whistled and two hundred arrows sailed through the air.

"Will you come into our green wood?" asked the man who called himself "Robin Hood."

The king turned to Catharine, saying:

"Would you dare to go with these outlaws?"

"If you wish it, sire," she responded.

Soon they were in the forest and sat down to a feast of venison. You can imagine the fun it was for the royal couple to be in a sweet-smelling woods instead of a stuffy palace.

The "outlaws" were really soldiers of the king. They had dressed up for May Day.

Henry Makes War on France

After a few years of easy, pleasant life, King Henry decided that he would like to win glory in war. He had read about victories won by former English kings. It seemed to him that he could make his own name great on the battlefield.

There was no war going on, so Henry decided to pick a quarrel with France. That country was close by, which was one reason he chose to fight there. Another reason was that he thought England might gain back some of the French land which it had owned centuries before.

France was attacked when Henry was only twenty-one years old.

English ships setting sail for France. Cannon are being shot off in honor of the event.

The English soldiers did not like the idea of going abroad to fight. Some of them began to rebel. The attack was a complete failure and had to be given up.

The king was stubborn and decided to try again. This time, things turned out almost as badly. The English won a battle or two, then made peace. No land was gained for England.

Some time later, Henry made a trip to France to meet the French monarch on "an errand of friendship." France was then ruled by King Francis the First. He met Henry near the city of Calais.

Both kings wanted to show how rich they were. They put up tents

of velvet, of gold cloth, of silver cloth. Knights on beautiful horses carried flashing banners, as Henry rode to meet Francis and "talk things over." The place of meeting was afterwards called the Field of the Cloth of Gold.

Henry told Francis that he would help him fight against King Charles of Spain. Francis was glad to hear this, because the Spanish king was a dangerous enemy.

A little while later, Henry gave the same kind of promise to King Charles. He said that he would help fight the French king.

Thus we see that Henry was telling a lie to one king or the other. It turned out that the French king was the one deceived. Henry gave aid to King Charles and helped him become the strongest ruler in Europe.

That action caused much bloodshed for England in later years. It gave Spain so much power that she became a rival almost impossible to beat.

The King Seeks a Divorce

King Henry and Queen Catharine lived together for twenty years. Toward the end of that time, Henry began to tire of her. He thought that she was "getting too old." Their only living child was a daughter named Mary. Other children had died in infancy. Henry began to say that the death of his other children was "a sign from heaven."

"Ah," he declared, "I have done wrong. I should not have married the widow of my brother. That is what makes my children die. That is why I have no son to sit on the throne after me."

Such was the reason he gave for wanting to get rid of his wife. The real reason, it appears, was that he had fallen in love with a young woman in his palace named Anne Boleyn.

A cardinal named Wolsey was sent to Rome to ask the pope to let the king be divorced. The pope did not want to grant the request but, at the same time, he did not wish to lose Henry's friendship. He sent two churchmen to England to hear the case. Henry was glad because he thought that the churchmen would surely decide in his favor.

The trial was held in the month of June, 1529. The queen was present the first day. Just at the opening of the trial, she ran to where King Henry was sitting, and knelt before him:

"Sire," she cried, "I beg of you, for all the love that has been between us, let me have justice. Take pity on me, for I am a poor woman, a stranger born outside of your kingdom. Alas, sir! How have I offended you? What have I done against your will or pleasure? I call all the world to witness that I have been a true and humble wife."

This pitiful speech did not move Henry from his purpose. He told the judges to go on with the trial. They did so, but could not question the queen—she had left the room and refused to come back.

The queen making her plea to King Henry. Catharine had the good will of the English common people, who felt that the king was doing her wrong.

At the end of the trial, the churchmen told Henry that they would have to see the pope again before deciding the question. He was full of rage over the delay. A meeting of parliament was called. Laws about the church were made.

The result of the new laws was to give the king power over the English church. He became a kind of "pope of England."

The Later Years of Henry's Reign

After Henry became ruler of the English church, he made an archbishop out of a man named Thomas Cranmer. He told the new archbishop to be judge at a second divorce trial.

Queen Catharine again refused to answer questions at the trial.

Cranmer did not try to give her justice. He simply followed the king's will, and granted a divorce.

Henry was now free to marry again. It did not take him long to wed Anne Boleyn. The chief result of the new marriage was the birth of a daughter named Elizabeth. This child was destined to make a long-remembered name in history. She became the famous "Queen Bess."

It would be too much to go into the history of the rest of Henry's wives. All told, he had six. One after another, they became tiresome to him. Two he divorced, two he put to death, one died before she was married long, and the sixth lived until after he had died.

King Henry the Eighth in his costly attire.

I think there is no man living who will say that King Henry was fair to the women he married. He stands as an example of a man cruel to those weaker than himself.

It is said that Henry once proposed to an Italian lady.

"Thank you," she replied, "but I am sorry I cannot accept. I have only one neck and I do not care to risk that by being your wife."

The king's sixth wife treated him very thoughtfully. He was now old, sick and very stout. The care of a tender woman must have eased his final years. Some persons might say that it was more than he deserved.

Armor, Shoes and Barbers

Knighthood was going to seed in the time of Henry the Eighth. The invention of gunpowder had made a knight in armor an easy victim

of a foot-soldier with a musket. All that knighthood had left was the chance for play-fights and the memory of former days.

However, there were still some rich and idle nobles who liked to play with armor, swords and lances. To keep them supplied, many clever armor-smiths and sword-smiths made themselves busy.

One of our pictures shows an armor-smith at work. He is hammering out a piece of metal. On the table, you can see three helmets and other odds and ends. Standing up, "as proud as life," is a complete suit of armor. It is so complete that one wonders how men who wore such outfits could get fresh air.

An Armor-Maker.

A shoemaker's shop is also pictured. As a matter of fact, we might better call it a slipper-maker's shop. The "shoes" of that time were more like slippers than anything else. Take a look at those which are in sight. You will see that they were not made to be laced up. Instead they were simply "slipped on." That will give you a hint as to where the word "slipper" came from.

At the table are two men making footwear. There were no factories for such work. The shoes or slippers had to be handmade. No hammers or nails are to be seen. The pieces of leather appear to have been held entirely by thread.

That shop was also a store, where footwear was sold. You can see a woman looking at a pair of slippers handed to her by the man who runs the place.

A Footwear Shop.

Barbers of the Middle Ages were "Jacks-of-all-trades." Not only did they shave and cut hair; they also had charge of bathrooms, and often took a hand at being doctors or

surgeons. In certain cases, they would cut a man in hope that he might be cured by "bleeding." In other cases, they tried to heal the wounds of their customers.

A barber shop of the time of Henry the Eighth is pictured. One barber is cutting a customer's hair. He has a comb stuck above his ear, and a dagger at his belt. The customer has a cloth thrown over him, to keep hairs from getting on his clothes or down his neck. The chair looks fairly comfortable, but is not so good as the kind used nowadays. The other barber is giving a man a shampoo. The customer's hair has been well "soaped," and water is running down from a bowl above.

The inside of a barber shop, as pictured by an artist who lived during the time of Henry the Eighth.

Barbers of those times were banded together in guilds or unions. The idea of the guild was to see that barbers were well treated, and to keep down the number of those who entered the trade.

Gypsies Rove Over Europe

By the time Henry the Eighth became king, bands of dark-skinned people had begun to rove over Europe. They were gypsies.

The name "gypsy" comes from "Egyptian," because certain gypsies said that Egypt was their native land. It now seems certain, however, that India was the country from which they began to spread over the world.

The gypsies traveled on horseback, in wagons, or on foot. There were usually from thirty to one hundred in each band. All had dark eyes and dark hair. Most of them were ragged, but their leaders or "dukes" were dressed in costly fashion.

Groups of gypsies, passing from place to place, were in the habit of camping in the open. They soon became noted for horse-trading, fortune-telling and stealing.

"Telling fortunes" was (and still is) the great money-making business of gypsy women. They would look at the hands of Christians and pretend to tell the past, present and future. They spoke in such a vague manner that whatever they said might be true for almost anyone. In this way, many came to believe that they were highly gifted.

A scene at a gypsy camp where fortunes were told. The artist who made this picture lived at about the time of Columbus.

In spite of all their faults, we cannot help but have pity for the lot of the gypsies. They had no home to call their own—unless a wagon might be called a home. Some of them were constantly in the misery of half-starvation. Certain cases are on record where they begged to be burned to death, in order that their hard lives might come to an end. Gypsy women, especially, were likely to beg to be killed.

One time, a gypsy man was whipped and ordered to get out of a German town. He was told that if he returned, he would be hanged. The poor fellow decided that he would rather die than live, and came back to ask someone to put an end to his sorrowful life.

Even nowadays, gypsy bands wander over the face of the earth. They are found in America, as well as in Europe and Asia.

CHAPTER XLVII

GALILEO AND THE TELESCOPE

In northern Italy is a city called Pisa. It is chiefly famous for a tower which does not stand straight. That tower is commonly spoken of as "the leaning tower of Pisa." It was built many hundreds of years ago. People have wondered whether it would fall over, but century after century it has stood.

A sketch of the "leaning tower of Pisa."

The leaning tower was once the scene of an event which holds interest for the world. A man named Galileo used it to prove one of his ideas.

Galileo was a teacher at the University of Pisa. He was still a young man, less than thirty. The other teachers did not like him. They thought that he was "too smart."

I must explain that in those days it was a custom for teachers to believe all that had been written about science by Aristotle. Perhaps you remember that Aristotle lived when Greece was still in her glory. He was a great man, but he made many mistakes about science.

Young Galileo dared to say that Aristotle had made mistakes. The other teachers were shocked.

"It is an outrage," they cried. "This upstart ought to be driven out of college."

"Let me prove one of the mistakes," replied Galileo. "Aristotle

said that a heavy weight would fall faster than a light weight. He thought that a ten-pound weight would fall ten times as fast as a one-pound weight. Come to the tower and I shall show you that he was wrong."

A large crowd of students and teachers gathered around the leaning tower. Galileo went to the top and shoved two balls of iron over the side at the same time. One ball weighed a pound, the other weighed ten pounds.

Clank! The two balls struck the street at the same moment! Galileo had proved his point.

It is said that some of the teachers refused to believe their eyes. They kept on saying:

"No, it is not true. Aristotle says the heavy weight falls faster. That must be so."

Those teachers, however, could not keep down the truth. Galileo had laid bare a law of nature.

Invention of the Telescope

A little more than three hundred years ago, there lived a man named Hans Lipperhey. He was a Dutchman and his trade was making eye-glasses. In his shop worked a youth who was learning the trade. One day, as the story goes, the youth happened to look through two lenses. Instead of being in a frame, the lenses were held in the lad's hands, a foot or so apart. He looked through them both with one eye.

"Oh, see!" he cried. "These two lenses make things look bigger. And they're upside down, too!"

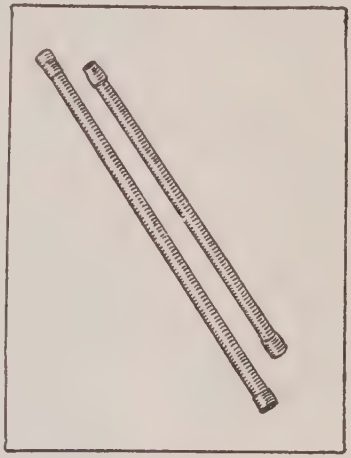
Hans took a look himself. Sure enough, the glass pieces did what the youth said.

"Well, well," thought the master, "I can make a dandy toy!"

The two lenses were fitted in a tube and Lipperhey looked through them. He could see the weather-cock on a church steeple some distance away; but steeple and all seemed upside down.

This toy spy-glass or "telescope" was placed in the shop window. A customer picked it up and looked through it. He was surprised by what he could see, and decided to buy it to give to a prince.

Fortune now did something very fine. Someone wrote a letter to Venice telling about the invention. Galileo was then teaching at the University of Padua, near Venice. He heard the news and decided to make a "spy-glass" for himself. Day after day he worked trying to learn what kinds of lenses should be put together to make things look larger. At last, he found the ones he wanted. Taking an organ pipe about two feet long, he placed a lens at either end. He looked through, and presto! Everything seemed to come closer—right side up!



Two spy-glasses or telescopes said to have been made by Galileo. At first they were held in the hands. Then stands were made to go with them.

Galileo was not satisfied with this spy-glass. It made things look larger, but not large enough. Soon he made a new one, which showed things much farther away. Ships coming to port could be seen two hours sooner than with just the eyes.

Then Galileo had the greatest idea of all: he would use the spy-glass to look at the moon, the planets and the stars!

Saturn and Its "Ears"

There are eight planets going around the sun. The earth is one of the four smaller ones. Largest of all is Jupiter, and then comes Saturn. The planet Saturn is of special interest to us because of its "rings."

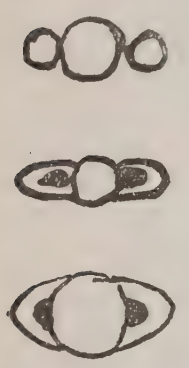
Three hundred years ago, people did not know about the rings.

Galileo had never heard of them when he began to study the starry heavens with a telescope.

One night he decided to look at Saturn. To his surprise, he saw that it seemed to have three parts. He made a drawing like one of those pictured. It looks like a circle with "ears."

By and by, Galileo looked at Saturn again. The "ears" were gone! Writing to a friend, he said:

"I have found that Saturn is now all by itself. It has only one part, and is round like Jupiter. What is the meaning of this? Have the two outer parts sunk into the center? Or was it only a mistake?"



Three drawings of Saturn and its "ears," made by Galileo.

Another idea was that perhaps the two outer parts had gone behind the main part. He kept watching. At last, the "ears" (or, as we know, the rings) came back to sight. You can be sure that Galileo was happy. People could no longer think that he tried to fool them.

The outer parts now looked somewhat different. They seemed to be joined more to the center. Perhaps that was because he used a better telescope. At any rate, he made two other pictures which gave a better idea of Saturn.

Galileo never did find out what the "ears" were really like. That remained for scientists of later times to discover.

If you were to take the bottom of a pie pan, cut a hole in the middle, and put an orange inside, you would get a pretty good idea of the shape of Saturn and its rings. The tin part would be the shape of the rings. How must the rings have been turned when Galileo could not see them?

A drawing of Saturn made by an astronomer who lived soon after Galileo.

The rings of Saturn are now believed to be made up of millions of tiny "moons," some of them perhaps smaller than oranges.

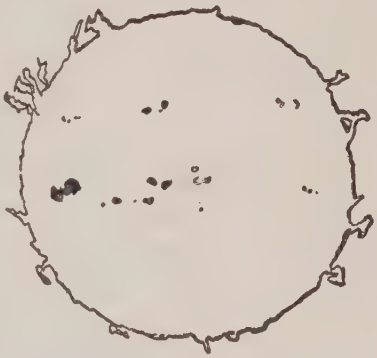
The Discovery of Sun Spots

After Galileo had looked at the moon and planets for a while he began to watch the sun with his telescope. Of course, he always used a dark glass when gazing at the fiery "light of day"—else he might have been blinded.

What do you suppose he saw?

First of all, he beheld the bright "disk." Then, as he looked more closely, he made out *spots*.

Other men in Europe were now busy with telescopes. Two of them —a German and a Dutchman—saw spots on the sun at about the same time as Galileo.



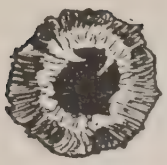
A diagram of the sun, showing spots. Around the rim are indications of the great flames of fire which leap out thousands of miles.

No one knew just what the spots were. The German guessed that they were planets very close to the sun. Galileo thought that they might be clouds of vapor or smoke. He watched them closely, day after day.

Finally, he declared:

"The spots on the sun are fixed at its surface. Sometimes two or three of them come together. Sometimes a spot will split into several parts. The spots always keep moving. They move in the same direction, which shows that the sun itself is twisting around."

Galileo was right about the sun twisting. It goes around once in four weeks. The spots twist around with the sun. They sometimes vanish in a few days, but often they last week after week. Even now



View of an average sun spot. The small circle shows how the earth would compare in size.

we do not know for sure what the spots are. It is thought that they may show great storms at the surface of the sun. Perhaps they are "clouds" or "islands" of molten metal. Possibly they are "holes" made by wind-storms.

The spots look dark, but they are really as light as would be millions of electric lights together. They seem dark only because compared to the rest of the sun.

Galileo Admits Truth is "False"

For eighteen years, Galileo remained at the University of Padua. Those years were full of splendid work. Besides finding out some things about the sun and Saturn, he studied the planet Jupiter. That planet is more than a thousand times as large as the earth. Galileo did not find out the size of Jupiter, but he did discover that there were good-sized moons going around it. He made this an argument in favor of the idea that the earth moved around the sun.

The idea of the earth moving had been held a century before by a thinker named Copernicus. Everybody knows now that the earth moves, but in those times it was a strange idea. Copernicus did not get into trouble. Most persons thought that it was just a foolish notion, and let him alone.

Some thoughtful men, however, believed that the idea might be right. They talked it over, and wrote about it in letters. Copernicus died before the telescope was invented, but his idea lived on. Galileo became its chief champion, and wrote books in which he told why he believed that the earth must move around the sun.

The books of Galileo put him in trouble with the church. It was said that some parts of the Bible could not be true if the earth really moved around the sun. An effort was made to stop the printing of Galileo's books, and he was told never to write such things again.

For years, the great astronomer remained silent upon the subject.

Then he thought that it would be safe to write another book. This time he did not say that he believed the earth moved. Instead he made three persons talk about the question on the printed page. This book was read by churchmen, and they thought that it was likely to make people believe in the motion of the earth. Galileo was ordered to come to Rome and face trial. Ten cardinals were his judges.

"You have sinned again," he was told. "Take back what you have said, or you will come to sorrow."

Galileo was then a tottering old man of seventy, and had very little bravery left. Fearing that he might be punished as a "heretic," he signed a paper which said:

"I give up the false idea that the earth moves. I shall not teach it or print it in a book."

There is a tale that he muttered afterwards, "But it moves anyway," or some such words. Possibly he did say that to himself, but there is no proof that he said it aloud.

To make sure that he would write no more books, Galileo was kept a kind of prisoner in a private house. His eye-sight began to fail him, and after a while he became totally blind. A year later he died.

The work Galileo did can never be forgotten. He helped show us what kind of a world we live in. Other men were to keep up the study of the planets and stars.

CHAPTER XLVIII

THE REIGN OF QUEEN ELIZABETH

King Henry the Eighth had three children who lived beyond infancy. Their names were Mary, Elizabeth and Edward.

Edward was the youngest child, but (being a boy) he gained the throne when his father died. He was then only ten years old. As you can imagine, he did little toward ruling England. Other men did that for him. He was a sickly youth, and died at the age of sixteen. His half-sister, Mary, was crowned queen.

Queen Mary was a Catholic. She managed to put the English church back under the control of the pope. Princess Elizabeth was a Protestant. One day the queen told her to go to mass. She did not wish to do so, but feared to disobey. She went with hanging head.

When Elizabeth was fifteen years old, she fell in love with a certain Lord Seymour, who wanted to marry her. They had many boating parties on the Thames River, but their love affair was found out. The princess was sent to the country, and before long she heard news of Lord Seymour's death. This may have been the only true love of Elizabeth's life.

Some of the English people were angry because Queen Mary was a Catholic. A revolt broke out, but it was put down. Elizabeth was suspected of having helped stir up the trouble, and was ordered to the Tower of London.

The princess refused to be taken into the tower until she had written a long letter to her half-sister. In this letter, she said that she was not guilty and begged for mercy.

The queen did not believe Elizabeth, but feared the anger of the people if the princess were put to death.

Two months passed—two months which must have been full of sorrow for Elizabeth. Then she was let out of the tower, and taken to the country, where she was kept in a kind of "private prison." It is

said that one day she looked out of a window and beheld some milkmaids.

"Oh!" she sighed, "I wish I were one of them!"

The Princess Refuses Two Husbands

Princess Elizabeth was kept in her country prison for eleven months. Then she suddenly received a message from the queen, ordering her to come to the palace and take part in the life of the royal court.

Perhaps you are wondering what the princess was like at that time in her life. We have this description, written by a man from Venice who then lived in London:

"Her face is pleasing, rather than pretty. She is tall and well-formed. She has great knowledge of foreign languages, and knows Italian above all."

Queen Mary had married the crown prince of Spain. He had a favorite noble called the Duke of Savoy, whom it was planned that Elizabeth should marry.

One thing the man from Venice did not mention was the self-will of the princess. She had a mind of her own, if ever a woman did. When she was asked to marry the duke of Savoy, she replied:

"No, I will not marry him! I love England too well to go and live in his country."

The queen next tried to marry her off to the son of the king of Sweden. Again she returned the same kind of answer.

If Queen Mary had lived to a ripe old age, there is no telling what would have happened to Elizabeth. She might have been placed in prison again, or she might have been put to death. As it was, the queen soon died and her half-sister was hailed as the new ruler of England.

After gaining the throne, Elizabeth showed that she was not a Catholic. She asked parliament to make laws taking away the pope's power in England. Parliament did what she asked. The queen be-

came the head of the church in her country. Never before had a woman been so high in church affairs.

Three Thousand Gowns and Many Suitors

Some women of the present time buy four or five hundred dresses or gowns during their lifetime. They are proud of the fact because it shows that they have rich husbands or fathers.

These women, however, do not hold a candle to Queen Elizabeth. According to an old record, she became the owner of three thousand gowns.

To be sure, she did not buy them all at once. They came into her possession "gradually." Each year, she would get a hundred, or a hundred and fifty, new ones. How would you like to get a new suit or dress every two or three days? I think you would become tired of it before long.

Elizabeth.

It is surprising that a bright woman like Elizabeth made such a fuss about clothing. The reason she kept it up was that she was vain. She liked to have people say that she was pretty. She thought that her costly gowns, many of them rich with jewels, would "set her off" in the eyes of everyone.

Perhaps her gowns helped bring her proposals of marriage. Her hand was sought by princes from all over Europe. These princes also thought of the power they would gain by marrying the queen of England.

Elizabeth seemed to want to keep all her power to herself. Each prince, she put off with one excuse or another.

It seems that the queen did care for an English noble called Lord Dudley. She was always glad to have him near her. People began to think that they would be married, but Elizabeth said:

"Do you think I would marry one of my own subjects?"

She made Lord Dudley the Earl of Leicester, and he kept waiting, waiting to see if she would be his wife. At last, he gave up hope and married another woman. The queen became angry. She was on the point of ordering Dudley to be put in prison, but thought better of it at the last moment. He was left free for some years.

As if to take another kind of revenge, Elizabeth sent word to a brother of the French king that she was willing to marry him. That prince was only half her age, and was very ugly. He was happy to think of the chance of marrying Elizabeth, and came to England in haste. The queen changed her mind, and gave an excuse to put off the marriage.

Dudley came to a sad end. He was charged with treason, and put to death. While in prison, he tried to save his life by sending a certain ring to the queen. The messenger did not deliver it on time. When the queen finally received the ring, she wept, saying:

"If this ring had reached me promptly, I would have spared his life."

A Fight in a Mexican Harbor

While Elizabeth was queen, there arose a group of English sea-captains who were little better than pirates. Chief of these were John Hawkins and Francis Drake.

Hawkins was the older of the two men. He was admiral of a fleet of six ships which had a serious adventure. Drake was captain of one of Hawkins' ships. The fleet first sailed along the coast of Africa. Four hundred negroes were taken aboard, to be sold as slaves.

By that time, the Spaniards in America had learned that the Indians made poor slaves. The red men usually either fought to gain freedom or died under the strain of steady work. It was different with the

negroes. They did not have enough spirit to fight for freedom. They were able to work day in and day out, without losing hold on life.

English ships at anchor, in the century of Drake and Hawkins.

So it was that the Spaniards liked to get black slaves. When Hawkins brought negroes to the West Indies, he was able to sell three hundred of them at good prices. There were still one hundred left, and Hawkins thought that he would try to sell them in Mexico.

The English fleet anchored in a harbor on the Mexican coast. Soon, a large Spanish fleet came along and wanted to enter the harbor because there was a heavy storm raging in the gulf. The English might have kept them out, because the harbor entrance was narrow.

"What shall I do?" wondered Hawkins. "There are thirteen Spanish ships. If we let them in, they may sink our small fleet. On the other hand, if we keep them out, they will all be sunk by the storm."

After hesitating a while, he let the other fleet into the harbor. If we can believe Hawkins' story, the Spanish opened fire on the English. The latter fired back and there was a hot battle. Two Spanish ships were sunk, and one was set afire. The English lost four ships, and the other two fled from the harbor.

On one of the ships which got away was Hawkins; on the other was Drake. Neither man ever forgave the Spaniards for this deed. They used it as an excuse to fight Spanish ships whenever they saw a chance.

Drake was only twenty-three when he took part in the harbor fight. He had already proved himself an able captain and it was dangerous for the Spaniards to have him trying to take revenge.

Drake Raids the Spanish Main

Four years later, Francis Drake sailed from England on a voyage of revenge. This time he was the "admiral" of two small ships. He sailed them to Central America, and docked them in a harbor.

At that time the Spaniards were getting great loads of gold and jewels from Peru. These treasures were put in ships which sailed up the Pacific to the town of Panama. Then the treasure was put on the backs of mules, to be carried across the isthmus. When the "mule trains" reached the Atlantic coast, the treasure was placed in ships and carried to Spain.

Drake knew about this traffic. Soon after he had landed, he found four hundred tons of silver at his mercy, but he declared:

"We are not after silver this time. We want gold and jewels."

With fifty men, he started across the isthmus. In a few days, he was joined by seventy Frenchmen who were also enemies of Spain. The little army succeeded in surprising a mule train loaded down with gold and jewels. The treasure was seized and carried back to the ships. The French took half, the English half.

This robbery is often spoken of as "Drake's raid on the Spanish main." This isthmus was thought of as the Spanish "main" or "mainland," to set it apart from the Spanish islands in the New World.

Laden with booty, Drake's ships sailed away. The harbor of Plymouth, England, was reached on a Sunday morning. The news of their coming reached a church where the minister was preaching a sermon. It is said that almost everyone in the church jumped from his seat and ran down to the harbor.

Drake was treated with honor. Queen Elizabeth was one of the first to pay him honor—as if the robbery had been a great deed.

Four years passed. Then came a day when the queen called Drake to her presence.

"The king of Spain has done me wrong," she said. "I want you to help me take revenge."

Daring the Straits of Magellan

When Queen Elizabeth asked Drake to help her obtain revenge on Spain, you may be sure that he was not slow to say that he would do so. They agreed on a daring scheme. Drake was to set sail for "a port unknown." He was to take his ships down around South America, then up along the western coast. Once in the region of Peru, he was to seize whatever Spanish ships and treasure he could lay hands on.

Without letting this plan be known, Drake set out with five ships and two hundred men. They sailed across the South Atlantic. When not far from South America, some of the men began to murmur. Drake offered them one of his ships to use to sail homeward, but the offer was not accepted.

At last, the fleet entered the Straits of Magellan. This was a dangerous region and sailors feared to go into it. The English, however, braved it as well as they might.

Day after day, they made their way through narrow channels. It was so far south that blocks of ice floated in the water. Giant glaciers rose on either shore. Some of the channels were so deep that no cable could reach bottom. This struck fear into the sailors' hearts.

One good feature of the passage of the straits was the finding of an island whose shore was almost covered with penguins. They were tame and Drake's men had little trouble killing three thousand. Those which could not be eaten at once, were salted down for the rest of the trip.

After seventeen days, the fleet entered the Pacific, which was then still commonly called the "South Sea," even though Magellan had named it the Pacific. The part of it into which the English came surely was not "pacific." They were greeted by a storm which lasted for fifty-three days. Snow and darkness were with them almost all the while. The ships were scattered and never joined one another again. Two were sunk, two sailed back to England after the storm was over. Only one kept to its course. That ship carried Francis Drake. It was the largest and fastest of all, and had enough cannon

to bring real damage to the Spaniards along the western coast of South America.

Drake Gets Enough Treasure

The Spanish had small settlements all along the western coast of South America. Little was it suspected that an English ship would come along and disturb them. Not a single town was in shape for a battle.

Then came Drake with his crack warship, the *Golden Hind*. He raided the Spanish towns and found them "easy money." Sometimes he did not take gold or jewels but other kinds of goods. For instance, at Valparaiso (which then had nine houses and a chapel), the booty consisted of bread, bacon, wine and an altar-cloth. The altar-cloth was given to the minister on board the ship.

An English warship of the time of Drake.

The treasure gained from the towns was small compared to that taken from Spanish ships. One vessel after another was captured and robbed of its contents. The most important treasure-ship had a name which in English would be the *Spitfire*. It was caught after a chase and was found to contain a small amount of gold and a very large amount of silver. Twenty-six tons of silver were taken out of it. Someone cried:

"That ship shouldn't be called the Spitfire! It's the Spit-silver!"

In all of these actions, Drake was acting more like a pirate than anything else. But there was one way in which he behaved much better than a common pirate. He did not kill the prisoners he took. After seizing their treasure, he let them sail away. In the case of the *Spitfire*, he even gave its captain a dinner of honor before setting him free.

By that time, Drake had all the treasure his ship could carry with convenience. The problem was to get back to England. One idea was to sail around the northern coast of North America. No one then knew how out of the question that was.

With the northern trip in mind, Drake ordered his pilot to steer up along the western coast of North America. After going quite a distance, everyone on board began to shiver with the cold. Fierce winds beat down from the north. Drake decided to turn around. The *Golden Hind* sailed southward until it came to anchor in a bay near the spot where San Francisco now stands.

Drake Circles the Globe

Drake and his men landed on the California coast. They pitched tents and began to build a fort. A group of Indians watched them from a distance. These Indians, it seems, had never seen white men before. They finally gathered enough courage to come closer and make signs showing that they believed the visitors were gods.

Sir Francis Drake, pictured beside a globe in honor of his trip "round the world."

Drake did not like to have them hold such an idea. He ordered his men to kneel and stretch their arms to heaven "to show where God was." The red men did not seem to understand. Every now and then, they cried, "Oh!" This was taken to be a mark of worship. By and by, the Indians gave Drake a crown—or perhaps only a bonnet—of feathers.

After spending a month in California, the English set sail straight westward. They were going to sail across the Pacific! It was to be a voyage "round the world"!

For sixty-eight days they were without sight of land. You can imagine how glad they were that they had taken in a good supply of seal meat before leaving the coast of California.

The first land found was the home of savage people. Magellan had met some of the same kind. They were thievish. Coming among the white men, they stole everything they could lay hands on. The English called the place the Island of Thieves. I do not know whether or not the sailors smiled over this name—thinking of the treasure they themselves had stolen from the Spanish.

By and by, the Spice Islands were reached. Some trading was done there; then the *Golden Hind* was sailed across the Indian Ocean, around the Cape of Good Hope, and finally to England.

When Elizabeth heard of the return of Drake, she was filled with pleasure, for she knew that she would gain profit from the voyage. She make Drake a knight, and he is known in history as Sir Francis Drake.

England Beats Spain's Great Fleet

You can be sure that the king of Spain did not like the idea of having the English steal his American treasure. When he saw that Drake was not punished, but honored, he became more angry than ever. Orders were given for a great Spanish war fleet to be made ready. The new fleet came to be known as the "Invincible Armada," which meant "the armed ships which can't be beaten." Another name of this fleet was the Great Armada. We shall use it because it is more simple—and truthful.

It took Spain six or eight years to get the Great Armada ready for war. During that time, Drake captured a large ship returning to Spain from India. It was loaded with spices and jewels. More important, it contained maps showing the best way known to reach India by water. These maps helped the English start a lively trade with India.

At last the Spaniards were ready with their giant fleet. It sailed

to the English Channel, to punish the British for all the wrongs done by Hawkins, Drake and other British sea-raiders.

On the first day of the battle, the Spanish fleet was much stronger. It had one hundred and twenty-eight large ships against fifty-four smaller ones. The English, however, were wise enough not to risk too much fighting until help came. Within a few days, the number of English ships had passed one hundred and fifty.

Before the fighting began, the crew of each Spanish ship knelt down and prayed. They "begged the Lord to give them victory." The English sailors also prayed that they might win.

As time passed, the fighting grew hotter and hotter. Night came and the battle was not over. Day after day, it went on. Cannon and muskets flamed, crashed and cracked. Now and then a ship went to the bottom, amid the groans and shrieks of its sailors. The decks of other ships were strewn with dead and dying. Blood flowed in such streams that it sometimes dripped over, making crimson streaks on the sides of the ships.

Seven days passed, and then came victory for the English. The fleet "which couldn't be beaten" was driven to flight. Only a small part of it ever got back to Spain. England became the "mistress of the seas."

CHAPTER XLIX

WALTER RALEIGH AND WILL SHAKESPEARE

"Walk on my coat, your highness. You must not soil your dainty foot by stepping in the mud."

With these words, says an old story, Sir Walter Raleigh threw his fine plush coat across a mud-hole in order that Queen Elizabeth might keep her slippers clean.

It is hard to say whether that story is true or not; but it was just like Raleigh to do such a thing. He was a man who could think quickly and perform a bold act at the right moment. Besides, he was always eager to please Elizabeth.

You have heard of the queen's love of finery. Raleigh was just as bad in his way, perhaps a bit worse. He often wore armor made out of silver and set with diamonds, rubies and pearls. It is said that he wore shoes "worth thousands of gold-pieces."

A ladies' carriage in the time of Elizabeth and Raleigh is shown in this picture. Travel was very slow then, compared to the present time with its autos, railroads and airplanes.

Happily, there were other sides to his nature. He was not always thinking of clothes or jewels. He was a sea-captain. He led parties of explorers. He wrote poetry. He was a law-maker in the English parliament. He wrote a history. He did some work in chemistry. People thought him a good musician.

Raleigh made vain attempts to have colonies started in America by men he sent across to settle there. To help him, Queen Elizabeth gave a large tract of land in North America. She caused it to be

named "Virginia." That was in honor of herself, for she was sometimes called "the Virgin Queen." Ship after ship was sent to the New World. Many things were learned about Virginia, and an attempt was made to start a colony. The effort failed, partly because of the beginning of a war with Spain.

By and by, Raleigh fell in love with a maid of honor in the palace. They were secretly married, but the secret leaked out. Elizabeth's vanity was hurt. How could Sir Walter dare to love another woman? He was arrested and put in the Tower of London. By good fortune, he had money enough to buy his freedom.

Raleigh Saved from Death

When Raleigh was a trifle past forty, he set out on a trip to South America. He visited the shores of what is now called Guiana. The trip was made to obtain gold more than for any other purpose. It did not pay well from that viewpoint, but the voyagers heard tales of wealth which made them think of coming back later.

Raleigh told his men to treat the Indians in a kindly manner. The red men were paid for whatever the white men wanted. Of course the Indians were pleased by this treatment, so different from that of the Spaniards. It is said that the memory of Raleigh was kept alive for more than two hundred years, and that the tribes always hoped that he might return.

Sir Walter Raleigh.

Sir Walter returned to Europe and was the leader of English soldiers in a battle against Spaniards. The English won, and he was given much honor by Queen Elizabeth. Sadly for Raleigh, the queen died in the year 1603.

King James of Scotland was heir to the English throne, and came down to London to rule. Sir Walter greeted the new monarch in a

friendly way, but received a cold answer. Soon he was arrested and put in the Tower of London. He was accused of treason. His trial was not a fair one, and ended in his being sentenced to death.

Four days before he expected to die, Raleigh wrote a letter to his wife, telling how sad he was to part from her and his son and daughter. He said to his wife:

"Thou art young yet, and might well marry again, to save yourself from want."

At the last moment, King James sent word that Raleigh should not be put to death, but should be kept in the Tower. Perhaps the king was afraid of what people would say if such a great man were killed without a better excuse.

Raleigh's History of the World

The "Tower of London" is really made up of a group of towers. This picture shows the tower where Raleigh was kept for 12 years.

Many a dark tale might be told about the Tower of London. For hundreds of years, it was used by English rulers as a kind of "safe deposit vault." Instead of containing jewels, it was used to hold human beings—persons whom the rulers thought dangerous.

The real reason, it seems, that Raleigh was put in the Tower was this: King James feared him because he was so well liked by the people. James was afraid to let him be killed just then, but was not afraid to keep him in prison.

Raleigh was unhappy to be shut away from the world, but he did not lose heart. His will was firm and he decided to make the best of his life in prison. One thing he did was to write what he called "A History of the World." It was

published as a book and King James read it. The king thought that it did not show enough respect for rulers, and tried to stop its sale.

I cannot say very much in favor of Raleigh's history. It is almost all about wars and generals—as if that were the chief part of history! There is one chapter, however, which may make us think. It speaks of how important it is for people to be truthful, and to keep faith with one another.

Besides writing, Raleigh did some work on chemistry. He tried to see what would happen if different chemicals were mixed. This work he carried on in the prison hen-house!

By a gift of fortune, Sir Walter was allowed to have his wife come to the Tower and stay with him from time to time. She felt happier to be in prison with the man she loved than to remain outside without him.

The end of Raleigh's life is sad indeed. After being in prison twelve years he was set free. Almost at once, he started on a voyage to South America in search of gold. The trip was a failure because Spaniards blocked the way.

On his return to England, the king accused him of "making war on Spain." That was thought to be a good enough excuse to put him to death. Raleigh died from the blow of the cruel ax at the age of sixty-four.

The most important work of Raleigh's life was surely his attempt to start a colony in Virginia. He failed, but he lived long enough to see other Englishmen begin a successful colony at Jamestown.

Early Life of Will Shakespeare

Three or four hundred years ago, men did not always spell their names in just the same way. Sometimes a man would write his "last name" in one way, sometimes in another.

When Queen Elizabeth had just come to the throne, there lived in the village of Stratford a man whose last name was spelt in at least fourteen ways. That man was John Shakespeare (or Shaxpeare or

Shakspere, or almost any other way you might want to spell it!). The man of whom I speak had a large family. His eldest son, William, or "Will," became the most famous poet who ever lived.

William Shakespeare, as nearly as we can find out, was born in the year 1564. No record has been found of the date of his birth, but we know that he was baptized on April 24 of that year. Babies of that time were usually baptized a few days after birth. When he was six or seven years old, he appears to have entered school. The pupils at Stratford had to attend both summer and winter. During winter, the hours were "from dawn to dusk." In the summer, the pupils went to school at six o'clock in the morning and could not leave until six in the evening! There was an hour off for lunch, with recesses at nine o'clock in the morning and three in the afternoon.

William went to school until he was thirteen. Doubtless, he received a whipping now and then—though the master of his village school was not a cruel man. The chief things taught were writing, arithmetic and Latin.

William's father was "chief alderman" of Stratford when his son started to school. He also held the office of bailiff and ran a business. We cannot say for sure just what kind of business Mr. Shakespeare ran but we know that he sold meat and dealt in wool. It appears that he also made and sold gloves.

For some years, the father was fairly "well off." Then he began to fall into debt. Perhaps that was due to the growing number of children in the family. One result was that the boy was forced to quit school.

A Youthful Marriage

After William was taken out of school, he is believed to have gone to work in some gainful way. No one knows what he did. Perhaps he was a lawyer's clerk, perhaps he helped in his father's store. It is even possible that he taught for a while in the village school.

Whatever he did to make money, we can be sure that the youth spent

much of his spare time out-of-doors. In the poems and plays he wrote later on, he showed that he knew nature well. The country around Stratford was beautiful—with its great forests, its fields and pastures full of flowers, and the gentle river Avon. The river is so closely knit with the town that Shakespeare's birthplace is commonly called Stratford-on-Avon.

We can imagine young William fishing in the river, or more likely, lying on its bank in a shady place—dreaming. What dreams must have come to this active-minded youth! He little knew how his dreams would some day be put into words of such beauty that the world would never tire of them.

In other moments, William must have been busied with human affairs. In his plays, his knowledge of nature is only equaled by what he knew about *people*. We may well believe that he spent many an hour talking to men who came to bargain in his father's store. When strolling in the country, he must have taken up with farmers from time to time. Perhaps he asked them question after question. At any rate, he talked to them until he knew their lives inside and out.

Some of William's strollings took him to the near-by village of Shottery. There he came to know a young woman named Anne Hathaway. To be frank, she was not so very young—at least not compared to William. She was six or eight years older than he.

The young fellow from Stratford—"gentle Will"—did not seem to mind the age of Anne. They were married. The youth was then less than nineteen.

Young Shakespeare Goes to London

The marriage was not a happy one. After a few years, William left Stratford, never to return except for short visits, and for the last years of his life.

The reason he left Stratford is not certain. An old story goes this way:

"There was a nobleman who owned land near Stratford. His name was Sir Thomas Lucy. One day, Will Shakespeare went into Lucy's forest and shot a deer. He had done the same thing before, but this time he was caught. Sir Thomas did not like the Shakespeare family, and had a special dislike for the proud son. To avoid trouble, Will ran away."

This story may or may not be true. It is perhaps more likely that Shakespeare left because he did not get on well with his wife. They had three children, but even that did not preserve their love.

Where did the young husband go?

To London! That city was then not one-tenth so large as it is now; but still it was the center of things for the English people.

Perhaps the thoughts of Shakespeare were bitter as he made his way to the capital city. There was reason for him to be unhappy, but I cannot believe that he was downhearted very long. He was too full of life for that—a young and healthy man of twenty-two is not likely to brood at great length. Perhaps he had not reached London before he began to think with bright fancy of how he might see Queen Elizabeth and the fine ladies of her court.

The outside of a theater in Shakespeare's time.

After arriving in London, he found work to keep himself alive. Legend says that he held horses for people who drove or rode to the theaters, which were outside the city limits. In work around theaters, Shakespeare must have come in touch with some actors. No doubt, he was full of hope that he might become an actor himself, some day.

Shakespeare Acts for the Queen

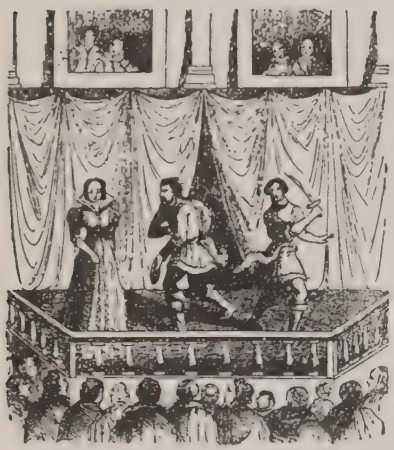
In the time of Shakespeare, theaters usually gave their plays in the afternoon. Great crowds of people flocked outside the limits of Lon-

don to see the performances. Sometimes it was not a play but a fencing match or a fight with an angry bear.

A minister of that time complained:

"If they hear word of a wicked play, a thousand people will go there. But if church bells ring an hour, there won't be even a hundred at the sermon."

It was common to charge a penny for each person who came to the theater. That was just for standing-room, or for a chance to sit in "the pit," which was then an open space in front of the stage. If one wanted to sit in a gallery, he had to pay an extra penny. If he wanted "a very good seat," he would have to pay still a penny more.



Three actors on a stage with audience in "pit" and four persons with balcony seats. The parts of women were almost always taken by men in those days.

Shakespeare was not in London many years before he obtained work inside a theater. It is said that his first inside job was as "promoter's assistant." That means he helped actors when they forgot their lines.

By and by, he was given a chance to show what he could do in putting a play in shape for the stage. Some of the plays of that time were well written, but were not put together in the best possible way. Shakespeare proved that he had a talent for picking out the best parts of a play, and he put them together in a manner which pleased the audience.

Besides improving plays, Shakespeare tried his hand at acting. He must have shown ability in this line, for he was soon given the honor of acting before Queen Elizabeth. An old record shows that he was one of three actors who were rewarded for taking part in two plays given in the queen's palace at Greenwich. Shakespeare was then about thirty years old.

Shakespeare's Mighty Work

Shakespeare was not content to shorten old plays, or to put parts together in different ways. He began to feel that he could *write some parts over again* and make them better. This he tried on play after play. Another great writer named Marlowe seems to have helped him sometimes in this work.

The earliest play Shakespeare wrote "all by himself" seems to have been "Love's Labor Lost." After that, his time was given largely to the writing of plays. Now and then he made up a plot from his own thinking. More often, he took an old plot,—some story that many persons knew—and turned it into a play of beauty and power.

I cannot here give you an idea of the wonder of Shakespeare's plays. As you grow older, you will read them for yourself. They are stories well told, and just from that viewpoint, they are worth reading. You will find that some of them contain rather cheap "puns," but those were put in only to please the playgoers who were usually not of a high type. The "puns" do not spoil Shakespeare. You can forget them when you read his noble lines on nature, or when you see how true to life he made some of his characters.

When you read "Romeo and Juliet," be sure to pause a while on the lines which tell about the fairy queen, who brought dreams to lovers when she drove over them. Her chariot was "an acorn shell" with dainty wheels, her horses were mites, "her whip a film."

Shakespeare is one of the few men of genius who ever made a good living. During most of his grown-up life, he not only wrote plays but also acted in them. He produced long poems which were printed and widely read. For some years, he was the head of a company of actors, which made tours of England and gave plays in dozens of towns.

The gentle poet of Stratford-on-Avon died when he was fifty-two years old. Many writers have lived to be much older, but never has one equaled him as a maker of plays.

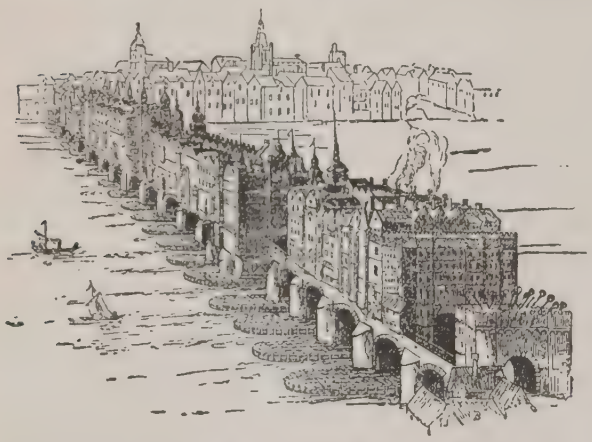
Shakespeare's only son died in childhood, but the poet lived to see both of his daughters married.

CHAPTER L

WAYS OF OLD LONDON

"London Bridge is falling down, my fair lady!"

It is an old song, in an old game, about a very old bridge. The present London bridge is about one hundred years old, but it takes the place of a bridge which was much older.



An old picture of London Bridge. Notice that many of the buildings were joined together over the roadway. That made it almost like a tunnel, though daylight could leak in at quite a number of places.

The older bridge I speak of, was the first one of stone to be built across the Thames River. It was finished in the year 1209, and stood for more than six hundred years. An artist of the time of Shakespeare made a sketch of it which is before you. I fear that the picture makes the buildings on the bridge look too spruce and solid. They were really tumble-down, old and flimsy, some of them almost falling of their own weight. The sketch, however, shows that there *were* houses built right out on the bridge.

Those houses were used for people to live in, but in front of almost every one was a shop of some kind. At these shops a person could buy books, hats, clothing, shoes, stockings, gloves, wine or groceries. A certain trader on London bridge had a hand-bill printed, saying:

"I sell all sorts of hair. You can get it curled or straight. I also sell ribbons, sewing-silks and cards—at the lowest prices."

And now comes the question:

"Was the bridge really 'falling down,' as it says in the song?"

The answer is that it was not in danger of a general crash; but there were always weak spots. You will notice arches underneath. Twenty such arches held up the bridge, and some of them came to grief. Only seventy-six years after the bridge was put up, five of the arch supports were swept away by the river, after a storm. A century and a half later, a great stone gate at one end of the bridge fell down, and two arches caved in. Oddly enough, not a single person was killed on that occasion.

Life on London Bridge

London Bridge was built so that people of the city could cross the Thames River without the trouble of rowboats or ferries. Yet there was trouble enough to get across! The roadway between the houses was almost a thousand feet long. At certain spots there was little room for carts, wagons or stage-coaches to pass one another. The shops jutted out, often leaving only ten or twelve feet between. From time to time, vehicles were caught in a jam, and then you can be sure that there were many excited people. We can imagine their shouts:

The approach to one side of London Bridge over which wagons rumbled and cattle stumbled. Ship masts can be seen over houses on the right.

"Hey, get a move on there!"

"I can't move! That idiot has run jam into the wheels of my cart."

"Idiot yourself! It was all your fault!"

In one way or another, however, the carts would be set free so they could move on, over the narrow, noisy bridge. Then the merchants would set up their shouts again:

"Oh, come and buy a pair of shoes!"

"This way for pretty dresses, the finest you ever wore!"

With the rumble of the carts, the shouts of the traders, and the hum of common talk, it is a wonder how people on the bridge ever managed to enjoy life. Perhaps they "became used to it," but at best, their lives were noise-filled.

At about the time Shakespeare came to London, the families on the bridge had a new cause to complain. A big water-wheel was set to work at the river-side. It was used to force water up the banks and through pipes to various places in the city of London. This wheel creaked and groaned, making more noise for the poor ears of those who dwelt on the bridge.

Queer Clubs of London

There is a story that London once had a Fat Men's club. There were two openings to the clubroom—one was a single door, the other was a double-door. When anyone asked to become a member (as the tale goes), he was told to walk through the single door. If he was able to do so, there was a shout:

"No, no! You can't be a member! You're too slim to get into this club!"

If, on the other hand, he was stuck in the doorway and could not get through, he was welcomed as a new member.

I cannot say that there ever was just such a club as that, but there certainly were some mighty queer bands of men in London. One such band was called the Kit-Cat Club. It was named after a baker, Christopher Cat or "Kit" Cat. That baker was famous for making mutton pies. The members seem to have met chiefly to eat his pies, and so it was quite proper to name their club in his honor.

Another band of men called themselves the Beefsteak Club. It is not hard to guess what they liked to eat! In other cases, men met together to drink—to "down the good old ale." Perhaps as an excuse for their wives, they called their gatherings "club meetings." Such meetings would often end with scenes of men made stupid by drinking. The nobles were among the heaviest drinkers. Perhaps you have heard the old saying, "as drunk as a lord."

Much better were the coffee clubs. Members would sit down at a table and drink cup after cup of coffee. As they drank, they would talk over questions of the day. Sometimes men of very keen minds came together at such places.

The poorest people could not afford to have clubrooms. They would talk things over in the open air, perhaps beside a coffee stand. Women as well as men would gather at such places to gossip or chat while enjoying "a hot cup of coffee."

The First Printed Newspapers

If you will look at the word "news" you will see that it contains the initials of the four directions—North, East, West, South. Someone noticed this long ago, and set up a claim that the word was "coined" out of those four initials, "because news came from all directions." As a matter of fact, that idea seems to be just a fancy. The men who make dictionaries say that "news" comes from "new," and we can well believe them. News is the report of recent (or "new") events.

During the Middle Ages, men were sometimes hired to write "news letters" from cities like Paris or London, to nobles living in the country.

Then came the printing-press. Some men wanted to tell their ideas, without writing whole books; so they had leaflets printed. Martin Luther, John Calvin, and many bishops wrote leaflets about religion. Others wrote about politics and kings. For a long while, the leaflets were not published at regular times. When a man had a new idea, he would have a leaflet printed. Then he might wait a month or a year before he put out another one.

By and by, certain men decided to print leaflets every so often—once or twice a month, or each week. They decided to print news as well as their own ideas. Perhaps they thought that people would buy the leaflets for the sake of the news, and *might* read the ideas of the editor, too.

A design printed on an early London paper which made a specialty of telling the news about Parliament. The faces of members were certainly not made in a flattering way!

It is hard to say where the first news-leaflets or newspapers were printed. London and Paris seem to have the best claims; and London was probably ahead of Paris. The British Museum contains three copies of a newspaper which were printed by order of Queen Elizabeth when the Spanish Armada was coming near England.

"News of the Present Week" was started by an Englishman named Butter, twenty-five years later. It was largely made up of second-hand or third-hand gossip.

How London was Lighted

The city of London was not a safe place at night during the time of Shakespeare. There were gangs of robbers who were likely to attack any person who dared to walk the streets after dark.

In those days the city did not put lights on the streets. All the light people had, came from lanterns hung in front of houses. Each family was asked to hang out a lantern. Watchmen used to pass along the streets at evening time, shouting such words as these:

"Put up your lantern, with a full candle! Hang out your lights! Hear ye, everyone!"

The watchman asked for a *full* candle, to guard against a little stub of a candle being used. Some families were so poor that they could not well afford to burn up a whole candle each night. Whenever possible, they got out of following the city rule. If the watchman called, however, we can imagine them tumbling out of bed and fumbling around for a candle, and for a flint and steel to strike the light.

Two watchmen of the time of Shakspeare.

Lanterns were supposed to be lighted at 6 o'clock on winter evenings. They were to be kept burning until 9, or, possibly, 11 o'clock. After the latter hour, no respectable man was supposed to be walking the streets. If anyone did, he was sure to carry a lantern.

Of course, people of those times (like people of the present) wished to have quiet during the night. One law was passed which said:

"No man shall blow a horn at night. Nor shall anyone whistle after 9 o'clock. If he does so, he shall be put in prison."

Another law said:

"There shall be no sudden outcry in the still of the night. No man shall beat his wife and make her scream and wake up the neighbors."

CHAPTER LI

KINGS AND THE ENGLISH PARLIAMENT

Perhaps you know that the English king has only a small amount of power. England is really ruled by two groups of law-makers, the House of Commons and the House of Lords. Together, they are called "parliament."

There was a time when the monarch of England was the real ruler. Old Henry the Eighth ran things pretty much to suit himself. Queen Elizabeth also kept most of the power to herself; but under her reign parliament had a little more to do with the laws.

An old picture of the House of Commons.

The next ruler was James the First. He came from Scotland, and was not so well liked as Elizabeth had been. The parliament decided it ought to have more power. The king, on the other hand, thought that it should have less.

The result was a bitter quarrel. King James put taxes on goods going in and out of England. The parliament voted that such taxes were not legal. King James was full of rage. He ordered some of the members of the House of Commons to be put in prison. The members protested, saying:

"We have a right to say what we choose."

The king replied:

"You have no rights except those I let you have."

After James died, his son Charles came to the throne. Charles was

a man of grace and fine manners. Some persons thought that he would be able to win the good will of the people, which his gruff old father had not been able to do. They thought that the quarrel with parliament might be ended.

That was far from the case. The dispute grew more bitter than ever. Four years after Charles became king, a parliament complained about taxes being gathered without its consent. Then came this order from Charles:

"Parliament is ordered to quit meeting. It has no power to make laws until I call it together again."

Most of the members obeyed the order promptly, but a little group in the House of Commons waited until it could declare:

"Whoever asks for tariff taxes without our consent, is a public enemy."

One man in that little group was named Oliver Cromwell.

Parliament Meets Again

King Charles decided to rule England without the help of parliament. For eleven years, he did not call the law-makers together. When he wanted money, he just put on a new tax, or else raked up some old law and put fines on people who had not obeyed it. For instance, there had once been a law which said:

"Everyone with land bringing in more than forty pounds a year, must take up the honors of knighthood."

People had forgotten all about that law. Charles put it in force, and thousands of men were fined. By this means the king made 170,000 pounds (about $800,000) for himself.

In the same way, he found reason to take away land from some of the nobles, and added it to the royal forests.

Worst of all, he made people pay more for some of the common

things of life. This was done by giving certain persons the sole right to sell salt, soap, or other articles which everyone needed. Those persons paid the king large sums of money. Then they charged high prices for what they sold.

King Charles on Horseback.

You can well believe that trouble was in store for the king. The time came when he wanted to carry on a war with Scotland. He was afraid to try to raise any more money by his own efforts, so he asked parliament to meet again.

The House of Commons was supposed to have control of taxes. When the king asked it for money, the reply was:

"We are not sure whether we can grant you money until our olden liberties are given back."

In a fit of anger, the king told the members to return to their homes. He was later sorry for the action, because he greatly needed their help to make a success of a war on the Scots. A year later, he asked the law-makers to come back to London. They came, and they remained until after Charles had met his ruin.

One of the first things done by the new parliament was to pass a measure, saying:

"We shall stay in London as long as we want to stay. The king shall not send us home again."

The King Makes Ready to Fight

During the time of King Charles, there were large numbers of people in England called Puritans. They believed that the English church should be made "more pure." They set themselves against dancing and other kinds of amusement.

The Puritans had been known ever since the time of Elizabeth. Sometimes they had been treated badly. Great numbers had fled to America, settling in New England. The Pilgrims were the first Puritans to start a successful town in the New World.

The bad treatment did not keep down the Puritan movement. Their number increased by leaps and bounds. By and by, the Puritans found that they had a great deal of power in the House of Commons. They began to try to take away power from the bishops. To help do that they put through a bill saying that bishops should not be members of the House of Lords.

King Charles was a friend of the bishops, and this bill made him angry. Before long, he took away the guards from around the House of Commons. Then he sent an officer with an order for the arrest of five members.

The House of Commons would not allow its members to be arrested. The officer went back to the king and reported his failure. Charles put himself at the head of four hundred soldiers and marched to the scene. Before he arrived, the five members escaped.

A noble during the time of the quarrel between King Charles and the House of Commons.

After that, the feeling grew more strained. The king began to fear a civil war. Feeling that London would be against him, he went northward to Yorkshire where he had many friends. Most of the people in Yorkshire showed that they were with him, but not so the city of Hull.

Hull was a seaport, and sea-traders were angry about the king's taxes. When Charles tried to enter the city with three hundred horsemen, the drawbridge was raised and he was told that he would have to stay out.

We can be sure that the king was enraged. He hurried to the friendly city of Nottingham, and made ready to fight.

King Charles Put to Death

While King Charles was preparing for war, it was a serious time for parliament. Many members did not know whether they dared fight him or not. But they felt that they had to decide at once. Almost three hundred members of the House of Commons said that they would stand against the king. About half that number were in his favor.

In the House of Lords, it was the other way around. Most of the members were with the king.

The House of Commons had more power, however, because it was backed by London. Ten thousand men were raised to march against Charles.

The king was hoping to get help from abroad, but he was blocked by the rebels. They seized control of the English navy. With the navy on guard, it would be a mighty hard job for arms or soldiers to be landed in the country.

The war began in the summer of 1642. The fighting went on for seven years, except for a short truce. The truce came when Charles said that he was ready to do certain things asked by parliament. No agreement was reached, however, and fighting started again.

Oliver Cromwell.

We shall not speak at length about the way the war was carried on. Like other wars, it was bloody and spread misery in many places. The main point of interest is the rise of Oliver Cromwell.

Cromwell was a member of the House of Commons. He took sides against the king. At the start of the war, he was only a captain. As the fighting went on, he proved himself the ablest leader of all. His work helped much toward the defeat of the king.

Charles was brought to London, a prisoner.

At this point, I must tell you what had happened to the House of Commons. Most of its members had been put out! Only those

who were *deadly* enemies of the king were left. They decided to try him for his life.

Charles said that the House of Commons had no right to judge him. He refused to speak when asked to defend himself. After three days, he was sentenced to death. His execution took place in front of his own palace.

England was declared a commonwealth, instead of a kingdom. Cromwell was made "Lord Protector."

After Cromwell became Lord Protector, he let parliament have little power. He wanted the country to be under his own control. Since he was the leader of the Puritan army, he was allowed to have things his own way.

For eleven years, Cromwell acted as the ruler of England. At one time, he led soldiers into Ireland to make the Irish do his bidding. Many Irish towns and cities were captured. One town held out stubbornly. When it was taken, the soldiers were ordered to kill all the defenders they could find. Almost three thousand men were killed for having tried to keep the town from capture.

Prince Charles.

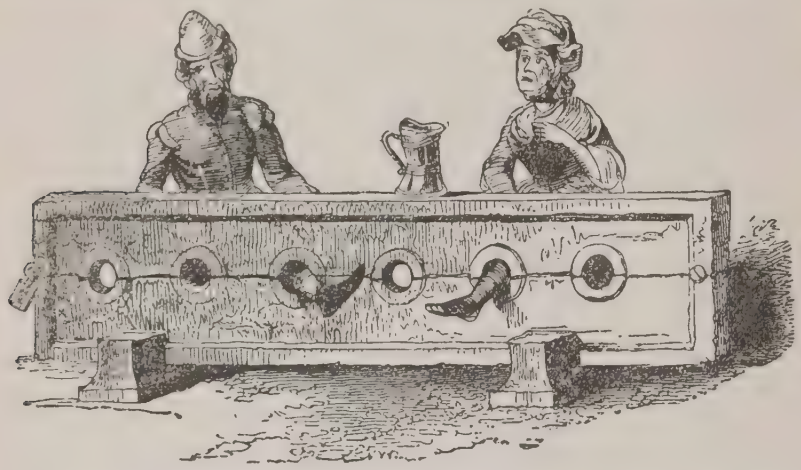
After the death of Cromwell, no Puritan seemed able to take his place. Prince Charles, a son of the dead king, returned to the country and was placed on the throne. England has remained a kingdom since that day.

A "Kicking Puritan"

One way people were punished three hundred years ago was to put them "in the stocks." This meant that their legs were held tightly in an opening. Sometimes, one leg was so held, sometimes both. You can imagine how it would be to have your legs held in the same place, hour after hour. They would surely "go to sleep"—and how would you feel then? I think you would be wondering whether you

really had any legs anymore. To sit like that, in public where everyone could look at you, would be worse—unless you were being punished for a principle.

To be put in the stocks was one of the lighter kinds of punishment in England. It might happen to a tramp, or to a beggar who pretended that he had too much the matter with him. Women, as well as men, were sometimes put in the stocks, as you can see by the picture.



A man and a woman in the stocks. They are lucky enough to have only one foot apiece held in the frame.

Still worse was the pillory. It was a frame in which a man's head was held just as firmly as feet in the stocks.

There was a time when a Puritan named John Lilburne was put in the pillory. Before being placed there, he was whipped while walking through the streets of London. Instead of howling with pain, he shouted defiance against the men who were being cruel to Puritans.

After his head was placed in the pillory, he found that his hands were still free. Thrusting them into his pockets, he pulled out Puritan leaflets. He tossed the leaflets to people standing near-by and said things in favor of the Puritans.

To keep him from doing anything more, the guards gagged him,

and bound his arms. Then he stamped with his feet, and the people knew that he meant:

"I am bound and gagged, but I am still on the side of the Puritans!"

Colonies in America

Before the time of Cromwell, and after he died, thousands of Puritans left England and went to America. They wanted to practice their religion in a new country. Massachusetts was the favorite place in which they settled. The city of Boston was started by persons of Puritan faith.

England now had other colonies in America. Virginia was becoming well-settled with tobacco planters. Quakers began to go to Pennsylvania toward the end of the seventeenth century. Maryland gave a home to Catholics. The adventures of the English colonists with Indians would make interesting pages; but I shall save them for a later book on American history.

The French were now settling parts of Canada; and were planting forts around the Great Lakes and in the Mississippi Valley. The Spaniards had won control of Mexico, Peru and Florida.

Religious Wars in Europe

The continent of Europe had long been the scene of wars about religion. The Catholics and Protestants were fighting for mastery.

The most noted leader of Protestant soldiers was Gustavus Adolphus. He was a Swedish king, who ruled shortly before Cromwell won power in England. At one time, Gustavus led an army of Swedes into Germany to help the Protestants. Armies of Catholics under a general named Tilly were beaten. That did not end the war, however. Battle after battle was fought. Cruel deeds were committed by both sides.

Gustavus was finally killed in battle; but his work was of value to the Protestants. It helped them keep control over much of Germany.

CHAPTER LII

LEARNING ABOUT ELECTRICITY

What would the world be like if it were not for electricity? That is hard to say, but we know that it would be very different.

The lights in houses would not be so good.

Some rather delicate autos would go out of business.

A man with a sulphur globe, such as was devised by Otto Gericke. He twisted the rod with one hand, and rubbed the globe with the other—giving it an electric charge. (This illustration and others in the chapter are taken from a rather old French book entitled "Marveilles de la Science.")

We could not have the same kind of street cars.

Many factories would have to use another kind of power, and electric trains would go back to steam!

All those things are possible only because we have that wonderful power called electricity. Let us speak of the days when men began to learn about electricity. The word comes from an old Greek term, "elektron," meaning amber.

Amber was used by Greek women for string beads. Someone learned that when it was rubbed hard, it would "pick up" hairs and bits of thread. Other Greeks tried the same thing, and thought that it was fun to play with the amber. They had no idea that they were playing with a power which would some day do great things for the human race.

The Middle Ages came and went. Then certain men began to "play" with amber again. They found that glass and silk would act

the same as amber when rubbed. (You might rub the back of a rubber comb on a piece of cloth and watch it pick up bits of paper or hair.)

Glass tubes came into use for making electricity. After they were rubbed with woolen cloth, the tubes gave little "shocks," and could be used to pick up bits of paper. Glass globes were often used instead of tubes.

About three hundred years ago, a German named Otto Gericke made a globe partly out of sulphur. When this was rubbed, it gave a shock, and it drew feathers and bits of paper. It also gave a light, which could best be seen in a dark room.

An Odd Electric Test

When people in Europe began to learn to make electricity with glass or sulphur globes, a craze spread over the continent. Everywhere men and women tried to find out new things about the "magic power."

In England lived a curious man named Grey. He wanted to learn whether electricity would pass through the body of a human being. In order to find out, he tried this odd experiment:

A boy was hung to the ceiling by silk cords. Grey believed that the silk would not let the electricity get away, and he was right. When he touched the feet of the boy with a glass tube which had been well rubbed, a shock passed through the boy's body and was felt by a person who touched his hands!

By touching different parts of the boy's body Grey found that the electric shock could be gained from any spot.

Across the English channel was a Frenchman named Dufay. He also became interested in whether the human body would carry electricity. Fastening some heavy silk cords to the ceiling, he placed himself in the loops. Dufay had a friend who was a priest. The priest came to his room and turned an electric machine. The machine had a glass globe which was rubbed with wool cloth as it turned. This gave it a good "charge" of electricity.

Dufay touched the globe and felt a shock. Then the priest put his finger near his friend's leg. What was his surprise when he saw a flash between leg and finger! It was probably the first time when a flash between two human beings had been seen.

The "stunt" of having a man or boy held in the air by cords for the sake of tests, was tried quite often after that.

The Glass "Dancing-Jacks"

The "dancing-jacks" flew up and down between the pans.

A sketch before you now shows the "jig of the dancing-jacks." The artist has pictured a girl and a boy, dressed in the fashion of their time. The girl is holding an iron rod with her right hand. That rod leads from an electric machine, and she is getting a shock. The shock passed through her body and into the pan in her other hand. The boy keeps a plate underneath. The plate is filled with bits of ground glass, the "dancing-jacks." They fly up and down, as the electric current passes from the upper plate to the lower one.

Some tests with electricity did not go well. Several men were killed by shocks; but their lives were not given in vain. Their work helped the human race to learn more about the new power.

Passing Electricity Through a River

In the year 1747, an unusual event took place in England. Electricity was passed from one side of a river to another. Take a good look at the picture on the next page.

The river is the Thames. At the right is London Bridge, which no longer held up houses and shops. Near us are nine men. Six of them are just looking on, but the other three are at work. One is turning a glass wheel to rub it and make electricity. The electric current is stored for a while in a glass jar.

From the jar, the current passes through a chain, then through the

Electricity was passed from one side of the river to the other.

body of a man. That man is holding an iron rod in the water. Then wonder of wonders—what do you think happens?

The electricity passes right through the water of the river, without a wire. It is "caught" by a man on the other side who also holds an iron rod in the water! It passes through his body, then into a wire in his other hand. The wire passes above water, being held up by men in three boats, and comes back to the electric machine.

When this test was made, it was found that the electricity crossed the river and came clear back to the machine! You can imagine how surprised people were to learn that electricity would pass through water.

In other tests it was learned that an electric current could start from one side of the river and set fire to brandy in a cup on the other side!

When the electricity was set loose, men watched to see how soon the flame would start. As near as they could tell, it did not take any time at all; and indeed it is true that electricity gets from one place to another in "almost no time."

Franklin and Dalibard

When men in western Europe began to play with electric sparks two hundred years ago, some of them noticed that the sparks were a great deal like lightning. They wondered whether a flash of lightning was simply a huge electric spark.

In America lived a man who did a great deal of thinking for himself. I am speaking of Benjamin Franklin. He went further than the men in Europe. A notebook he has left us shows that he thought:

"Lightning is like an electric spark. It gives the same kind of light. It has the same smell of sulphur. It goes crookedly, like a spark. It will go through rain, as electricity goes through water. Someone ought to find out for sure whether lightning is electricity."

Franklin sent a letter to a friend in England, telling his ideas about the subject. That friend wrote to men of science in France. Almost three years passed, however, before anything was done to learn about lightning.

At last a Frenchman named Dalibard decided to try to find out. He built a little shelter near the wall of his garden. It was made largely of wood, but there was an iron rod running up through the roof, ending in a point about forty feet from the ground. He waited for a stormy night.

Franklin was at the same time trying to think of a good way to "draw down the lightning."

Two Successes

One of Franklin's ideas was to set up an iron rod above a church tower, and let it "draw down" the lightning. He was so busy with

other things, however, that he let three years slip by without making a trial.

In the meantime, Dalibard made an effort to find out. On a stormy day (May 10, 1752), he went under a little shed in his garden. There was an iron rod passing up through the roof. Lightning zigzagged and thunder roared. Dalibard held a piece of iron near the lower part of the rod. There was a flash of lightning and a spark leapt from the rod! People from the village were called and more sparks were gained in the same way. It was proved that lightning was the same as electricity!

Ben Franklin and his son getting an electric spark from lightning.

It is a common mistake of history story books to say that Franklin was "the first man to get electricity from the clouds." The truth is that he did not do it until four months after Dalibard.

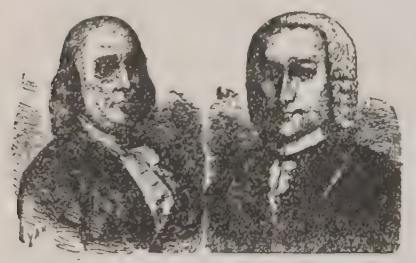
In September, 1752, Franklin and his son went into the open on a stormy night. Under the arms of one of them was tucked a kite, made in a special way. They came to a small shed and stayed under it to keep from getting too wet. From time to time, the kite was sent up into the air, but alas! the lightning did not reach it.

Hour after hour passed. The two men began to fear that their labor would be lost. Then, suddenly, a flash struck the iron point of the kite. It passed through the wet silk hemp cord until it reached a key a few feet above the end of the cord. The older Franklin held the wire point of an electric jar near the key. There was a flash. The trial was a success.

Franklin was the first man in America to draw electricity from the clouds. The way he did it was perhaps more interesting than the method Dalibard had used before.

Invention of Lightning Rods

Benjamin Franklin was a man who did not rest when he had done one worth-while deed. After drawing electricity from the clouds, he set about trying to make use of the discovery.

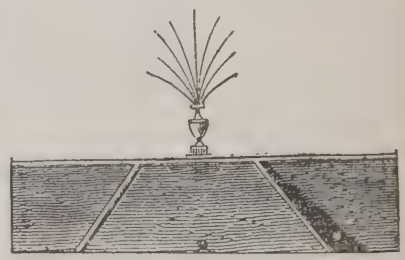


Franklin and Romas, both of whom claimed the honor of inventing the first successful lightning-rods.

Lightning had struck the iron point of his kite, so he said to himself:

"Perhaps the danger from lightning can be made less by putting iron points above buildings. Then, when lightning strikes, it will probably hit the point and can be carried to the ground by a wire."

The idea worked in Franklin's mind, but it seems to have taken some years for him to make a trial. In the year 1760, however, he set up a long rod above the store of a merchant in Philadelphia. People waited for a storm to see what would happen. The storm came. Lightning struck the rod and was drawn to the ground without setting the place afire!



The top of a lightning-rod of Franklin's time. Some rods had one point, but others had half a dozen or more.

A Frenchman named Romas was working on a lightning rod at the same time. There is a dispute as to whether or not he made it a success before Franklin.

As years went by, great numbers of stores and homes were "armed"

with lightning rods. Even churches were fitted up with them, though some persons protested, saying:

"A sacred place should not use such an invention"

Those persons were made silent when it seemed to be proved that fewer churches were set afire by lightning, because of the rods. As you may guess, churches were in special danger on account of the common tall pointed steeple.

Lightning Guards for People

When lightning rods for houses, stores and churches were invented, many persons began to say:

"It is all very well to protect buildings with rods, but how about ourselves? Sometimes we are out in a storm where we can get no shelter. Any moment we may be struck by a bolt from the sky!"

If those persons had used their reason more, they would have realized that there was not enough danger to worry about. Lightning seldom strikes a person in the open during a storm.

The people of one hundred and fifty years ago, however, became much alarmed by all the talk about lightning rods. They tried one thing after another to guard themselves.

One or two daring inventors made umbrellas with lightning-rods on top. Lightning was supposed to strike the point and pass down a wire drooping in the rear. These came very little into use, it seems. Indeed, one would think that they would be more likely to kill than save.

Much more common was the use of swords as lightning rods. When a soldier or "gentleman" found himself out in a storm, he would hold his sword aloft as he walked. The idea was that lightning would strike the point and run down the blade, but could not reach the hand because of the wooden handle.

Some ministers and priests were alarmed because they could not carry swords; but they were given comfort when Franklin said:

"The long flowing robe of a clergyman is a fine protection. If it

is struck by lightning when wet, it should carry the electricity to the ground without hurting the man who wears it."

The women wanted to be guarded, too. They were not content to let the lightning run down wet dresses, but fixed a little invention on their hats. In Paris, it was a common sight to see women walking along with bands of metal around the crowns of their hats, and wires trailing from the metal to the ground.

Frog's Legs and the Battery

Before leaving the subject of electricity, let us speak a little about the beginning of the electric battery.

As you may know, a battery has two kinds of metal. Zinc and copper are most often used. An electric current can be made to "flow" between those metals. It will flow best if there is a liquid or a moist material between.

Galvani watching a frog quiver during an electric test.

Perhaps you know that a frog's body is rather moist. That is an important fact, for a certain man of science in Italy used frogs when making tests with electricity. His name was Galvani. He did his best work some time after the lightning rod was invented.

Galvani turned an electric machine to make a current. He found that the current would pass very well through the body of a frog, between wires of the same kind of metal.

One day a new fact was learned. Frogs were being cut up on a table in Galvani's workroom. By accident, one of his helpers placed

a frog against a piece of metal of a different kind than the steel knife in his hand. To the surprise of all, the frog's legs began to twitch back and forth as if alive!

Galvani did not know why that was. He said that there must be electricity in the frog.

A friend of Galvani was named Volta. He had been rather dull at school, but when he began to study electricity he showed that he had a bright mind. Volta learned that the frog did not have the electricity in its body. He proved that it was the two kinds of metal which made the electric current flow. He guessed that the frog carried the current because its body was moist.

Acting on this idea, Volta made a battery with silver and zinc, and a moist substance between. When he touched both ends at once, he received an electric shock.

For a long time the facts learned about electricity did not do the world a great deal of good. In later years, however, men were to learn to make electric currents and batteries do all sorts of useful things.

CHAPTER LIII

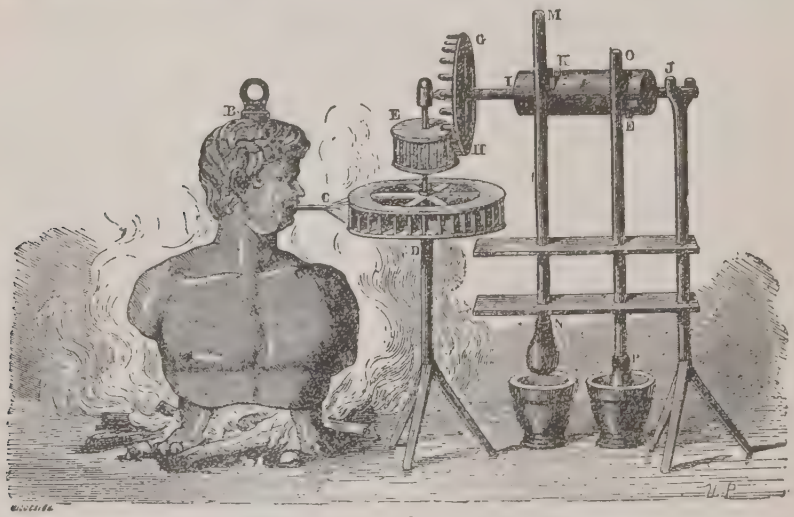
MASTERING STEAM POWER

The Greeks of olden days sometimes played with what might be called a "steam engine." It was really only a toy. Water was heated in a pot with a round opening at the top. The steam came out, and was so strong that a ball could be kept dancing in the air.

If the Greeks had tried, they might have used steam to do work, but they were content to let it be just a plaything. There were plenty of slaves to do the work.

The idea of making steam give power, however, lasted down the centuries. Three hundred years ago, men in western Europe began to try to invent a useful machine.

We have a curious picture of one of the first steam engines ever



A steam-engine of 300 years ago.

"put to work." I cannot tell you who made the engine. An Italian named Branca printed the picture in a book in 1629. He said that he did not know who the inventor was.

The thing which will first catch your eye is the bust of a man. It is really a boiler made of metal. Water was put in through a hole in the top of the head. Fire heated the water, and it began to turn into steam.

The only place the steam could get out was through a tube, held in the mouth. The hot vapor shot out of that in a big hurry, and blew against "paddles" in a wheel. That wheel turned a smaller one above. Still another wheel was then turned, in a way which you can see for yourself. The object was to make two rods go up and down. At the lower ends of the rods were crushers, no doubt used to mash grain in the jars. This steam engine may not have done very much work, but it helped point the way for other useful machines.

Papin's Early Career

Two hundred and fifty years ago, there lived in France an inventor named Denis Papin. His name has almost been forgotten, but he did much toward the invention of the steam engine. He was a "failure," but his work greatly helped the world.

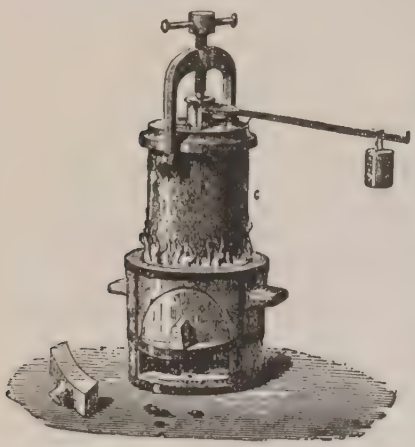
Papin was born in a French village, and spent his childhood largely in the country. By and by, he went to college and studied to be a doctor. When he was twenty-four, he began the work of trying to cure people, but his heart was not in it. What he wanted to do was to make machines.

Papin as a young man.

The months dragged by, and Papin decided to quit being a doctor. The idea of making steam do work was spreading over Europe at that time. A clever Irishman named Robert Boyle was making steam tests near London. Papin went to him and was given a chance to show what he could do. It was not long before he proved that he had a splendid talent for making new kinds of machines. Boyle treated him fairly and he spent three happy years in England.

Then came an invitation to go to Venice and continue his work with

steam-power machines. He accepted, for it looked as though he would have a fine future there. Unhappily, it did not work out so. He went back to England, but learned that his friend Boyle was dead. Without money of his own, Papin had little chance to push ahead.



A steam boiler invented by Papin.

Returning to France, he found that he could make no better headway there. He had almost lost heart, when he received a letter from Germany. It asked him to become a teacher at the University of Marbourg.

The Sad Fate of an Invention

When Papin was asked to be a professor at the University of Marbourg, his heart must have been filled with joy. He went there, hoping to be able to carry on his life work of trying to make steam power useful.

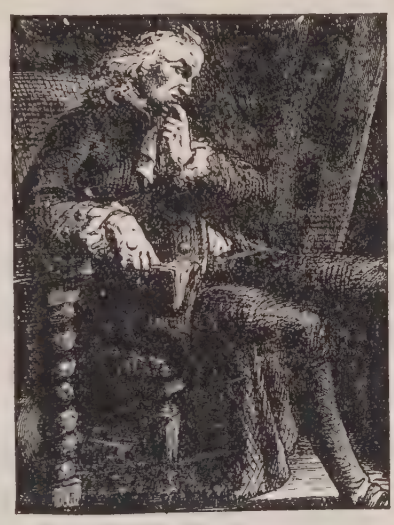
A sketch of a steam engine designed by Papin. The steam power pumped water and forced it through a pipe so it would come out and strike the paddles of a water-wheel.

Sure enough, he found himself able to make headway. In his free time, he built small steam machines, and showed them to his students during classes. Before long, the idea of making steam push a boat through the water came to his mind. He set to work to build an engine which would make a boat go. After a great deal of patient labor, he fixed up an engine which he thought would work.

Then came months of effort to try out the invention. It was hard to find a river where he could carry on a test. At last, however, he managed to put the engine on a small vessel, and attempted to make

a trip by steam power in a French river. It is said that the vessel actually moved, both forward and backward, but the trial was not a full success.

After trying to improve the engine, Papin had his little ship lugged to the Weser River in Germany. He asked for the right to run it there, but was refused. The sailors and shipowners did not like the idea of a new kind of boat in their river. Perhaps they thought that the boiler would explode; or else they may have feared that the "steamboat" would run into one of their vessels.



Papin in his old age.

Papin would not be stopped. In spite of the objectors he began to enter the Weser. Before he could get under headway, sailors boarded his boat and took the steam engine to pieces.

That action was one of the most unhappy events in Papin's life. He went back to his old home in France. The rest of his days, he spent in sadness and misery. We see him in his old age, sitting in a chair—dreaming still, but borne down by the weight of being poor.

Papin did great things to help forward the use of steam power. If he had had a better chance, he would have done much more.

The Day Dreams of James Watt

Forty years after the death of Papin, a Scotch youth named James Watt obtained work at the University of Glasgow. His parents had been so poor that he had not been given much chance to go to school; but he was a clever young fellow. His work at the college was to make models of machines.

A "model" has been defined as "a small imitation of the real thing." The professors wanted models to show their students how the machines worked. While Watt was making the models, his thoughts often turned to "the real things" in the outer world.

Some years before, an inventor named Newcomb had made a steam pump, which was used for getting water out of mines. Many mines were fitted up with such pumps.

One day a professor brought a model of Newcomb's pump to Watt, saying:

"This model is out of order. I want you to fix it up."

Watt began to tinker with it. First he fixed one thing, then another. By and by, he said to himself:

"This machine is all right in its way, but it doesn't work well

Watt in his workshop with a model of Newcomb's machine.

enough. It is too clumsy to run. The steam ought to be condensed in a different way."

After doing what he could with the model of the pump Watt sent it back to the professor. Then he began to think of how a better steam pump could be made.

Watt liked to dream of things which should be done. That is a very good thing to do, but it ought not be carried too far. Unless there is action, the dreams may not do any good.

Watt let year after year pass, without making any special effort to prove out his ideas. Then came a happy event. He was married to a young woman who liked his dreams, and also wanted him to put them to use.

"Work them out, James," she would say. "Make a steam machine which will be of great use to the world."

Watt's Successful Engines

After Watt was married, he set to work in earnest on his new type of steam pump. Day after day, month after month, he worked—and then, at last, it was ready! It was tried at mines and proved a success. It did much better work than the pump invented by Newcomb.

After this event Watt did not rest from his labor. Perhaps it was the influence of his wife which made him continue. At any rate, he set to work to put another idea into action.

The new idea was even greater than the one which had gone before. It was to make a steam engine based on different principles. Tests were made, and it seemed as though the machine would do good work; but the inventor was held back by lack of funds to push it ahead.

There lived in Birmingham, England, at that time, a man named Matthew Boulton. He became interested in Watt's work, and joined him as a partner. A large workshop was set going in a town near Birmingham, and Watt was able to try out his ideas better than he had ever been able to do before.

It was in the year 1775 that the inventor began his trials in the shop. Not long afterwards, he was able to prove beyond doubt that he had a machine which would use steam better than any other machine.

The new steam engine was found useful to "turn the wheels" in factories. It soon took the place of water power in a few places,

but in other places the owners were slow in trying it. Forty or fifty years passed before it came into general use. By that time Watt had been dead for years.

A "Horseless Wagon" of 1770

While Watt was putting his steam engine into good shape, other men were working on the idea of making steam run carriages and wagons. It is said that a student at Glasgow was the first to suggest the idea and that he told it to Watt. The latter, however, had his mind on the making of a better steam engine, and did not wish to change his work.

A "horseless wagon" built in 1770. Legend says that it was smashed when it bumped into a stone wall. (No picture of this machine has been saved from the time it existed; but the sketch above is based on plans left by the inventor.)

Some interesting machines were made in France. Among them was the one which we picture. As you see, it was a huge affair, with two heavy wheels at the back, and one in front.

Hanging before the front wheel, a giant boiler is to be seen. It not only served to hold water, but also as a fire box. The little smoke-stack of the fire box is in plain view.

The fire heated the water, so that it turned into steam. The steam passed through a pipe, and was compressed. That means a great deal of steam was forced into a small space. After being condensed, the steam had a high pressure. It worked downwards so as to press rods.

I cannot tell you all the other "ins and outs" of the machine, but we can see the crank which finally turned the front wheel.

This machine-on-wheels did really run, but rather slowly. From time to time, it would stop short, because the steam gave out. Then the driver would have to wait until the fire worked up enough steam to go ahead again.

The steering was done by a man who sat in front. He seems to have had a hard time. There is a legend that the machine came to an end when it butted into a stone wall, as it is doing in our picture.

CHAPTER LIV

STYLES OF TIMES PAST

Styles have been changing for hundreds upon hundreds of years. It seems that people can never "settle" on the fashion of their suits or dresses, hats or caps.

You have before you a picture of a group of women who lived some time before Columbus sailed to America. They are all mounted on horses, and all wear loose-flowing robes which reach below the feet. If you will look closely, you will see that no two women wear just the same kind of a hat. The first one is a queen. She wears what is called a "steeple" hat, because of its being shaped so much like a church steeple. Another woman wears a somewhat similar hat, but it is not so tall.

This odd picture shows a queen and five of her ladies at the time the "steeple" hat was just beginning to come into fashion in Europe.

The steeple hat was widely worn in both France and England. It helped short women to look tall, and tall women were able to tower over the tallest men. When a woman with such a hat entered a doorway, she was forced to stoop to keep her headgear from being knocked off. A French king of that period ordered carpenters to make the doorways of one of his castles larger, so that the queen and her ladies could pass through easily.

The so-called "horned hat" came into use during the same century.

As its name might make you think, it had two peaks or "horns." They stuck up in such a way as to remind people of a bull's horns. In some cases, it was even said that the hats made a person "think of Satan."

Monks and priests did not like the new kinds of hats. Some of them went about the country preaching against women who took up such styles. Their sermons caused the tall hats to be left at home for awhile, but before long women began to wear them again—often putting on still taller ones.

Husbands did not like the "steeple" or the "horned" hats because they cost too much money; but that did not stop the wives. The only thing which did stop them was the desire for new fashions.

Dresses, Shoes and Stockings

Most of the time during the past fifteen hundred years, women in Europe have worn long skirts. Sometimes, the skirts have just touched the ground. In other cases, they have been so long as to drag in "trains" several yards behind. It is only in the last few hundred years that European women have dared to wear dresses which hung above the ankles.

These dresses may seem rather long to us, but they were short compared to some of those worn by women three or four hundred years ago.

Our picture shows two women who lived at the time of Queen Elizabeth. Their skirts seem long to us, but they were not long for those days. Notice the frilled

neck-pieces. They were in style both in England and on the continent of Europe. Men wore them as well as women.

Women wore low shoes around the house, but when they went outdoors they often put on a pair of larger shoes outside the others. These outer shoes had much the same purpose as "arctics" of the present time, but were not so neatly made. Often the outer shoes had high heels of cork. Such heels were worn by women who wished to make themselves look tall.

Stockings were commonly made of pieces of cloth sewed together. The art of knitting had not been developed in this field. When a king of France wore a pair of silk stockings, knit by hand, at the wedding of his daughter, it caused a great deal of talk.

The nobles of those days were getting jealous of the merchants. The latter were able to buy just as good clothes for their wives as the nobles themselves. Complaints were made to the king of France, and he laid down these rules:

"No merchant, or wife of a merchant, can wear gray fur or ermine."
"No merchant's wife can wear gold or jewels."
"No merchant's wife shall be allowed to ride in a chariot."

That same king was jealous of the nobles, too. He told them that their wives must never have "more than four pairs of gowns in a year." He said that the cloth "must not cost more than twenty-five sous a yard."

Those rules are interesting to us, but they were not well obeyed. Women kept on wearing just about what they wanted to wear, if their husbands could afford to pay.

From Simple Dress to Hooped Skirts

By the year 1675, the women of England had become tired of large stiff ruffles around their necks. They were also tired of skirts which were so long as to cause them to trip when they walked. So it was that more simple styles came to be.

If you will look at the two women at the left of our illustration, you will see that they wear pleasing dresses. The skirts are rather long in back, but in front they are an inch or two above the ground. That was quite a new thing for English women. It was daring for them to let their shoes be seen!

It would have been well if the simple styles had been kept, but there was no such good fortune. "Leaders of fashion" began to wear skirts which were swelled out. The swelling was done by means of hoops made of whalebone.

At the right of the illustration, you see a group of three women,

At the left are women in fairly simple dresses. At the right we see the hooped skirts which later came into fashion.

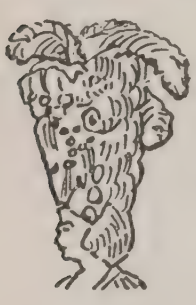
each wearing a "hoop skirt." As a matter of fact, the hoops were usually not in the skirt but in a petticoat worn underneath. That garment must have been hard to put on.

When a woman wearing such a dress wished to enter a doorway, she folded the hoops at the sides in order to get through. When she sat down on a bench or sofa, she took up two or three times as much room as a man.

This fashion was not very well liked by the men. They kept making fun of it. One comic artist drew a picture of a coach as it ought to be built for the sake of women with hoop skirts. The coach had

a roof which could be opened up so that the fair rider would have room to get in and out.

In the course of about thirty years, the hoop skirt began to go out of fashion, but it was destined to return at a later time.



A high headdress.

When High Heads Were in Fashion

Of all the odd fashions of women, I think none has been more queer than the "mountain" headdress which came into use about two hundred years ago, and lasted off and on for sixty years.

Before trying to tell you about it, I shall give you a little picture of a woman's head made at that time. What you see is mostly hair, with small feather's at the top. The head itself is small in comparison.

Such a headdress was common among the wives of nobles and rich men. They did not have much work to do, so they were able to play at making their hair "beautiful."

A comic artist made fun of women with high headdresses, by making the height seem greater than it really was.

No doubt you are wondering how the hair was made to stay up in that manner. It was done largely by means of a wire frame. This frame was put on by a skilled hairdresser. It was filled up with false hair or wool. Outside the frame was the hair of the woman, or else false hair which she paid for. Ostrich feathers or peacock feathers were often placed on top.

To build up the headdress of a lady of fashion might take a whole day, but it would last for a long time. Some hairdressers said that they could fix the hair so that it would be "all right" for three months!

Women with high headdresses had a hard time when they rode in coaches with fairly low tops. They were compelled to bend over, kneel on the floor, or hold their heads out of a window.

You can be sure that men were never tired of joking about this style. A second picture shows how a comic artist made it look even worse than it was.

Happily, women finally began to bring down the height of their headdress until it became natural once more.

Paint and Beauty Spots

At the present time, some women spoil the looks of their faces by dabbing on "rouge" or red "paint." Several hundred years ago, women used two kinds of paint—white and red. The white paint was supposed to make their skin look fair, and the red was used to make their cheeks seem full of ruddy health.

Of course, the paint really made them look less well than ever, but they did not know that. They fooled themselves into thinking that the "make-up" helped them to be pretty.

Nowadays there is a bit of a fad for young women to put "beauty spots" on their faces. These are usually tiny pieces of black court-plaster.

There was a fad of much the same kind almost three hundred years ago. Some women were not content to put on just one black spot —they almost covered their faces with circles and stars and crescent moons. The woman in our picture went so far as to decorate her forehead with the design of a coach and two horses (each horse with a rider).

A woman who thought "spots" would make her good-looking.

The idea of spotting the face seems to have come from an old story that the goddess Venus had a mole on one of her cheeks.

Perfumes have been used by women for ages. The custom dates

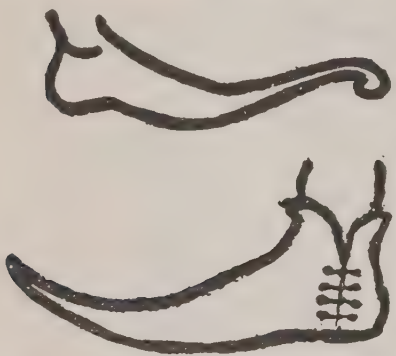
back to ancient times in Egypt. We have a recipe for making perfume which was used at the time of the beauty-spot fad in Europe. The recipe says that the wings and claws of pigeons should be ground to a powder. Into this powder should be mixed fresh eggs, honey, lilies, camphor and turpentine.

A custom of carrying small mirrors sprang up among French women. The mirrors were sometimes sewed to the shirtwaist. In other cases, they were hung from the girdle. When a woman wanted to look at her hair—or at her false beauty spots—it was easy for her to do so.

Walking sticks were often sported by noble dames of that period. The sticks usually had the images of birds carved on the handles.

Shoes with Curious Points

We sometimes laugh when we speak of the long finger-nails which rich Chinese have been in the habit of holding up—so people could see that they did not need to work.



Two pointed shoes such as were once worn in Europe. One sketch shows how they were laced at the side.

If we look back into the history of the people of Europe, we come across many a custom just about as queer. One such custom was upheld by men in regard to shoes several hundred years ago. They wore them long—far longer than there was any need.

You see pictured two types of the pointed shoes worn during that period. They are rather "tame" compared to some other shoes, which stretched out six inches, a foot, or even two feet beyond the toes! The points were stuffed full of hay, wool or moss. They were worn by rich men. Even to-day, you may hear a Frenchman say of a wealthy man:

"He has hay in his shoes."

Of course that does not mean that the wealthy man really has hay there. It is only said in memory of the time when long, pointed shoes were worn.

The points often got in the way when a man was walking. To take care of that, the tips were sometimes tied to a string or thin chain fastened to the waist or other part of the body. At least one pair of shoes had ends which turned right back to the leg and were tied around it, as is shown in a picture on this page.

In one way or another, men came to realize that the fashion was silly. They began to wear shorter and shorter shoes, until the points were almost gone.

At the same time that the points were taken in, the shoes were made broader. This went too far, and some of the shoes came to look like "walking pancakes."

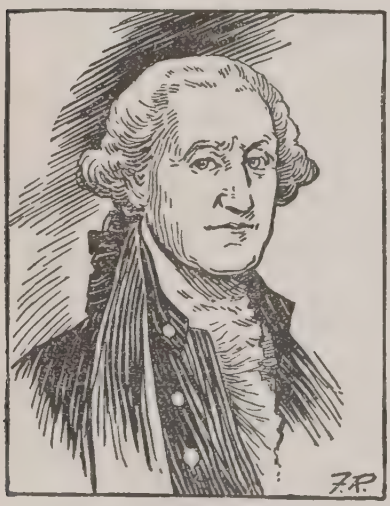
A happy medium was found at last, and men wore shoes which were just broad enough for comfort, and not too long.

CHAPTER LV

REVOLUTIONS AND NAPOLEON

For a long time, Great Britain and France were rivals in North America. The British had started colonies on the American coast, from Massachusetts down to Georgia. The French had settled in some parts of Canada, and had placed forts in many parts of the Mississippi Valley. The chief French towns were Montreal and Quebec.

In time the British colonists began to move westward, over the Alleghany Mountains. They entered land claimed by the French. Quarrels arose and partly because of those quarrels, came a war. Great Britain sent armies to North America, and so did France. The British won, and the French were driven off of the continent.



George Washington.

The American Revolt

Some years later, Great Britain and the colonies along the Atlantic coast found themselves in a dispute. The colonists said that Great Britain was simply trying to use them to make money. They protested against taxes which were laid on goods coming into America.

As a result of the dispute, fighting took place in New England. The colonists at first said that they were fighting only for certain rights. In 1776, however, the famous Declaration of Independence was drawn up and signed. This declared that the colonies were free and independent states.

The American armies were directed by General George Washington. He proved an able leader, and won many of the battles which were fought. Toward the end of the war, the French king decided to help the colonists. He did not do this from love of liberty, but rather because he was an enemy of England. A French fleet was sent to America, and it helped in the capture of the main army of the British. A peace treaty was then signed. Great Britain admitted that the colonies were free.

Washington became the first president of the United States of America, as the former colonies were now called.

Such, in brief, is the record of a war which was far more important than most wars which have been fought. A longer account will be found in the history of America which is to be published after this volume.

France Under the Kings

The example of the American colonists was soon to be followed in France: the French people were gaining a spirit of revolt.

You have heard of the nobles of the Middle Ages. You have seen how they enjoyed the good things of life, without working. You have perhaps wondered why the common people would permit such things to go on.

The common folk of France decided at last that they would live in misery no longer. They laid plans among themselves to overthrow the king and nobles.

The king at that time was Louis the Sixteenth. He had a charming but rather simple-minded wife named Marie Antoinette. If we may believe an old story, she was once told:

"The people are starving. They have no bread."

"Well, then," she is said to have replied, "why don't they eat cake?"

The poor queen did not realize that many of the people were too poor even to think of buying cake. She would have done well to learn a few things about the life of the common people.

The Taking of the Bastille

In Paris was a famous prison known as the Bastille. Perhaps I should not say "famous," but rather *in*famous. The Bastille was a huge, gloomy place where the king sent persons who did not obey his will. Sometimes persons were sent there without a trial of any kind.

To the people of France, the Bastille came to stand for all the things they hated. It seemed an example of the power of the king and the nobles.

One day (it was on a July 14th) a mob of men and women formed in Paris.

"On to the Bastille!" the shout went up.

The mob rushed to the mighty prison and forced their way inside. Many were killed by the guards, but others took their places. The Bastille was captured. The prisoners were let out and the place was destroyed. The key to the entrance door was found and given to an American, Thomas Paine. He sent it to George Washington, as a present.

The Fourteenth of July is to the French the same kind of day as the Fourth of July to Americans.

After the Bastille was captured, mobs began to have their way in many parts of France. The king and queen were captured, along with great numbers of the nobles. They were put to death, partly because of the rage of the people; partly to keep them from ever trying to get back their power.

For years, France was the scene of killing and disorder. Suddenly freed from their masters, the people did not know how to govern themselves. In time, they might have learned: but they were kept from having the chance to do so. Upon the scene came Napoleon Bonaparte.

Napoleon and the French Mob

In all history, it is doubtful whether there ever was a more clever general than Napoleon. I do not say this because I admire his kind

of cleverness. If any single man has caused wide-spread bloodshed, it is Napoleon. He came, as he claimed, "to save France." In the nineteen years that he was winning power, he brought the manhood of his country to the verge of ruin.

Napoleon had been trained as a soldier while a young man. He was less than thirty when, in Paris, he tried out a way "to manage the mob." Before that, cannon had been fired at the mob with only blank shells. Napoleon caused some cannon to be loaded with grape-shot, and these were fired into the mob "to teach a lesson."

Napoleon as a young man.

Winning Military Glory

Before long, Napoleon was allowed to lead soldiers against foreign countries (which were anxious to put a king back on the French throne). In the battles which followed, Napoleon proved what a master he was in leading men to fight. Time and again his armies beat armies of Italy and Austria. Had he stopped there, Napoleon might have been of service to the French republic.

But he did not stop.

He had become drunk with glory. He wanted to be known as "the greatest man." Armies were made ready to march into lands in far

places. At one time, a giant fleet took Napoleon and his men to Africa. Egypt was conquered. Six years later, he caused himself to be crowned emperor of France.

In the year 1805, Napoleon led an army of four hundred thousand men into Russia. For those days, that was a mighty army. The French reached Moscow. Two days later a large part of the city was burned. Napoleon ordered a retreat. He found that it was easier to take an army into Russia than to bring it out again. The Russians attacked the enemy at many points during the retreat. There were heavy losses on both sides. French soldiers began to die of sickness, or from the cold of the Russian winter combined with the weakness of hunger. Of the brightly-clothed army Napoleon had led out of France, only twenty thousand hungry and ragged men returned.

Napoleon Meets His Doom

In the autumn of 1813, the "Battle of the Nations" was fought, near Leipzig. Napoleon had gathered a new army, which he ordered to the battle-front. Here Napoleon met his first great defeat in a general battle. Six months later, Paris was captured by armies from Germany, Austria and Russia. Napoleon gave up and was sent to the island of Elba. Within a year he escaped and returned to France. His former soldiers (those who were still alive) gathered around him. The Battle of Waterloo was fought. Napoleon was beaten by German and English soldiers. He gave himself up and was sent to the island of St. Helena. This time he was placed under a closer guard. He was unable to escape, and died on the island six years later.

With Napoleon away, the other countries of Europe succeeded in putting a king of the old royal line on the French throne. It was to take more revolutions before France could become free of monarchs.

CHAPTER LVI

STEAMBOATS AND LOCOMOTIVES

Before the time of Napoleon, Frenchmen were at work trying to build boats which could be driven by steam power. An inventor named Jouffoy placed a steam engine in a boat one hundred and fifty feet long. The boat made a number of very slow trips on the Saone River in 1783; but it was not a real success. People tried to laugh it to scorn. They said that only a fool would "try to make fire mix with water." Jouffoy was not moved by their jeers; but he was forced to stop his trials. He did not have enough money to use to make his steamboat better.

In England and America, other inventors were at work at about the same time. Certain English "steamboats" were driven by paddles shaped something like ducks' feet and placed underneath the boats. The idea was to imitate the swimming of ducks. The boats actually moved, but it was found that the "ducks' feet" could not push hard enough to make heavy loads go forward.

The Steamboats of John Fitch

John Fitch was one of the first Americans to tinker with steamboats. In his early trials, he attempted to make a boat go by using a paddle-wheel. That did not seem to work, and he tried a new idea. A small skiff was fitted up with oars which could be worked back and forth by a steam engine. The trial was made near Philadelphia and the skiff moved.

Encouraged by his first success, Fitch set to work to try the same idea on a larger boat. In 1787, he fitted upright oars along the sides of a 45-foot vessel. There were six oars on each side. The steam engine was started, and the boat moved along. The speed did not satisfy the inventor, however, and he began to make improvements.

Three years later, Fitch enjoyed his greatest success. He tried a steamboat between Philadelphia and Burlington, and it ran eight miles an hour. That was a splendid speed for the time. To John Fitch belongs the highest honor for his work on steamboats; but he was not a personal success. His money gave out, and he looked in vain for help. Finally, almost in despair, he went to France to try to get someone to finance his work. No success was met there, and he went to England. Failing to obtain help from the English, he worked his way back to America on a sailing ship, serving as a seaman. In a notebook, he wrote these words:

"The day will come when some more powerful man will get fame and riches for my invention. But nobody will believe that poor John Fitch can do anything worthy of attention."

Those words have proved almost true, but a bit of fame has come to Fitch—long after his death. If you visit a great museum at Washington, you will find a model of Fitch's steamboat, and you will see that it is marked "the first successful steamboat."

Stevens and Fulton

Among the other Americans who worked on steamboats were John Stevens and Robert Fulton. They became bitter rivals.

In 1803 (after Fitch was dead), Fulton and a friend fitted up a boat in France. It was launched on the Seine River, and was driven forward by a paddle-wheel. The trial was a fair success, but Fulton saw that he needed a better steam engine. He ordered one from James Watt.

Returning to the United States, Fulton laid plans for building a boat to make a trial on the Hudson. It was fitted up with a sail to use in case the paddle-wheels did not work. The Watt engine was finally delivered in New York and was placed in the boat, which was named the *Clermont*.

A crowd gathered at the pier when Fulton was ready to start up the

river. Everyone seemed ready to laugh, but the *Clermont* chugged away and was soon in the distance. Two days later it arrived at Albany, an overnight stop having been made on the way. Leaving Albany on a Thursday morning, Fulton reached New York on Saturday afternoon. The average speed was four miles per hour. The motion had been due to the steam power, not to the sails.

Stevens, the rival of Fulton, had been working on boats to be pushed forward by propellers. The idea was good, but he was not able to turn it into a success. He therefore built a paddle-wheel steamer, and was about to try his luck when he learned of Fulton's success. This meant that he could not use his boat on the Hudson, because Fulton had obtained the sole right to run steamboats on that river. Not discouraged, Stevens used his boat for trips on the Delaware River.

Crossing the Ocean

The first steamboat to cross the Atlantic was the *Savannah*. Twelve years after Fulton had made his earliest trip to Albany, the *Savannah* started out for England. The voyage took twenty-nine days. Most of the time, the boat was moved forward by use of the sails with which it was equipped. Now and then, however, the clumsy paddle-wheels were set in motion. When passing near the coast of Ireland, the *Savannah* was under steam. A British sailing vessel caught sight of the smoke and thought the ship was afire. Sailing to the rescue, the British discovered their mistake. They were allowed to come aboard the steamboat; and they cast curious eyes upon the engine and the paddle-wheels.

Steam Locomotives

While some inventors were making steam power move boats, others were using the same power to move locomotives. The steam locomotive seems first to have been used to pull coal cars along tracks.

Long before the days of steam locomotives, carts which ran on rails

had been used at British coal mines. The rails were made of brass, and were used so as to avoid the rough spots on roadways. The carts were drawn by horses. When loaded with coal, they were very hard to pull.

As steam power came into use, quite a number of men did their best to invent engines which would make the carts go without horses. Two Frenchmen were in England at that time. They were able to build steam machines which would go on roads. Next they tried to make one which would travel on rails, but they met a trouble which they could not overcome. The wheels kept *slipping* when the steam power turned them around. Sometimes the machine would move a little way, but then the wheels would slip, and it would stop.

In time an inventor named Trevithick got around the trouble. He built a locomotive and used it in Wales. It drew a load of ten tons, at a speed of five miles an hour. That was only a little faster than a man could walk: but it was a good beginning.

Four other men were soon at work in England building locomotives. One of them, Hedley, made an affair which was given the name of "Puffing Billy."

The Work of the Stevensons

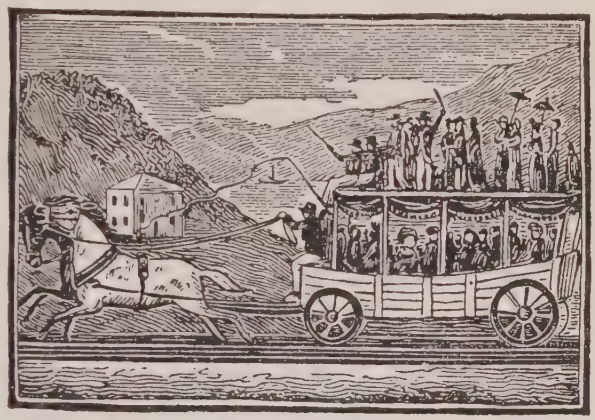
Newcastle has long been the most famous coal town in England. Thousands of miners spend their nights there; but during the day, they go forth to work in near-by coal mines.

When men were learning to make locomotives go on tracks, a man named George Stevenson was at work at Newcastle. His job was to put coal in a furnace.

Stevenson became interested in the idea of making steam power pull coal cars. There is a story that the idea came to him when he was one day told to repair some carts used for drawing coal along tracks by horse power. At any rate, the furnace-tender set his brain to work on the problem of building a steam engine which would make a coal car go on tracks. He tested the locomotive on iron tracks in-

stead of brass. It was heavy enough so that the wheels would not slip.

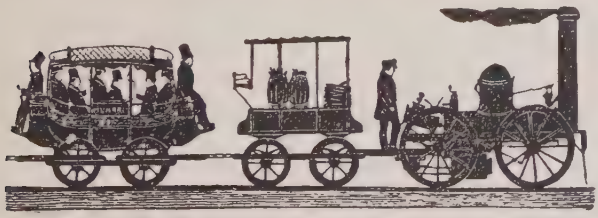
This "locomotive" was by no means a perfect machine. It went too slowly and its power was small. Stevenson did not lose heart, but set to work to build a better one. He was helped by his son Robert, who had received a college education. The two men succeeded in building a number of splendid locomotives. Some of them were used to draw cars with coal. Others drew open cars loaded with passengers.



Horses were sometimes used to pull people in coaches along tracks before locomotives were proved successful.

Passenger "Trains"

After the locomotive was fairly well developed, passenger "trains" were run in both England and America. In England, a line was kept busy between several cities. During some of the early trips, a horseman rode in front of each locomotive. His duty was to "see that the tracks were clear." He was supposed to "warn people to get out of the way."

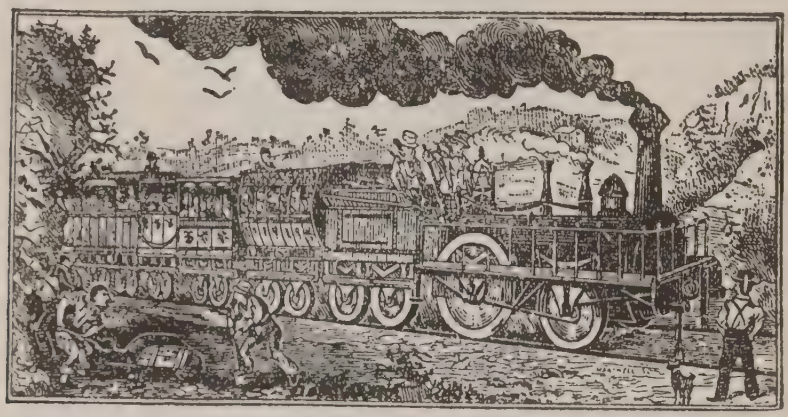


One of the earliest "trains" used in the United States.

In the United States, races were held at times between cars drawn by horses, and cars drawn by steam power. These races caused much

excitement. Sometimes the horses won, sometimes the locomotive.

The use of locomotives increased rapidly in the United States. Inventors set to work to make "the engines" better and better. Before



This train carried passengers from Albany to Buffalo "in 25 hours."

long a train like that in our last illustration was built. It ran between Albany and Buffalo. The railway company advertised that it would run between the two cities "in twenty-five hours." Such a speed marked a big advance; but trains of the present can run from New York to Chicago in less time.

CHAPTER LVII

IMPORTANT INVENTIONS

It is often said that "Watt invented the steam engine," or that "Fulton invented the steamboat." These statements are not quite true. Every great invention is the work of many minds. When we come to speak of the telegraph, we see how true this is. Let me name some of the men who made the telegraph possible:

Bozolus, Le Sage, Betaucourt, Faraday, Cavallo, Reizen, Ronalds, Sommering, Coxe, Sharpe, Morrison, Oersted, Ampere, Ritchie and Schilling.

There you have fifteen men who worked on the electric current for the telegraph before it was a full success. Among them are inventors of Italy, France, Germany, England and the United States.

In 1833, two Germans named Gauss and Weber set up a wire in the town of Göttingen. The wire was made of copper and ran above three university buildings. It was almost two miles long. Through this wire, an electric current was sent. It moved a magnetic needle. The longer the current was kept "on," the more the needle moved. By a system of signals, the two inventors were able to send and receive whole sentences.

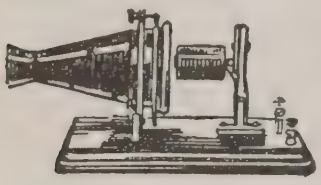
In the United States, Professor Henry, an inventor at Albany, New York, did some important work in testing plans for sending messages by telegraph.

Another American, Samuel Morse, was also busy at work. After making small tests in the presence of friends, he was ready for a great public proof. The Congress at Washington had become interested in his work. He was voted $30,000 to put up a telegraph wire between Washington and Baltimore. In 1844, the test was made. Messages were sent through the wire, for a distance of about thirty miles. Words were spelled out by a "click-click" method. This marked the final proof that the telegraph could be made of real use.

Since the days of Morse, telegraph lines have been set up in all parts of the earth. Cables have been laid across the oceans. News is telegraphed from one continent to another, and can be printed in newspapers within an hour or two after the event occurs.

The Telephone

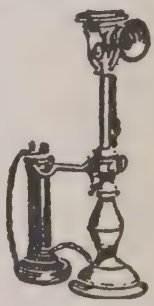
The telephone did not come into wide-spread use until about thirty years after the telegraph. During those thirty years, we find many men in many places working on the problem of sending the human voice through wires. An inventor in Massachusetts succeeded in doing it even before Morse made his famous test. But that inventor did not succeed in making the voice sound like a voice; the tones were only confused noise when they reached the other end of the wire.



One of the first telephones used by Bell.

The man who finally made the invention work well was an American, Alexander Bell. He made his first public test at Salem, Mass., in 1877.

The telephone carries the human voice with the help of an electric current produced by batteries. The mouth-pieces of the earliest successful telephones were very different from those used nowadays. You have before you a picture of an early Bell telephone. Ten years later, a telephone which looked somewhat more like those of the present, came into use. Even so, its picture may seem rather amusing to us. All things become different as time passes.



A telephone used ten years later than that in the previous picture.

Telephones are now used wherever there are civilized people. The United States contains more telephones than any other country—the number now reaching about fifteen million.

Other Great Inventions

The last century was the time of some of the greatest inventions which men have produced. The telegraph and telephone were made successes. Electricity was found to be useful in making lights. The sewing machine was invented. Steam power and electric power were used to turn machines in factories.

One of the most interesting inventions was the phonograph. Inventors (among them Thomas Edison) found ways to record the human voice and music, on a roll or disk of sensitive material. When a needle was passed over the roll or disk, it made sounds come from a large horn. In phonographs of the present time, the horn is hidden by a cabinet.

The phonograph has made it possible for people everywhere to hear the songs of great singers, the music of famous bands. Perhaps even more important (now that we have the radio) is the record which will be saved for people who live after us. What might we not give to hear the voice of Socrates or Shakespeare or Washington or Lincoln? How happy we would be if we could hear the playing of such musicians as Beethoven or Mozart! But, no, those men are now dead, and the phonograph was not in use in their times. It is for the future that such treats will be saved. The great speakers, the great players, the great singers, will place upon records that which will be heard hundreds of years from now.

The camera and moving pictures are other inventions of the past century. The camera saves a more exact likeness of a person than could be made by a painter or a sculptor. We have photographs of Lincoln, but none of Washington. If the camera had been used in the time of Columbus, we should know much more clearly how he looked.

Moving pictures are many small photographs, enlarged and thrown upon a screen. They make it seem almost as if the person were there before us.

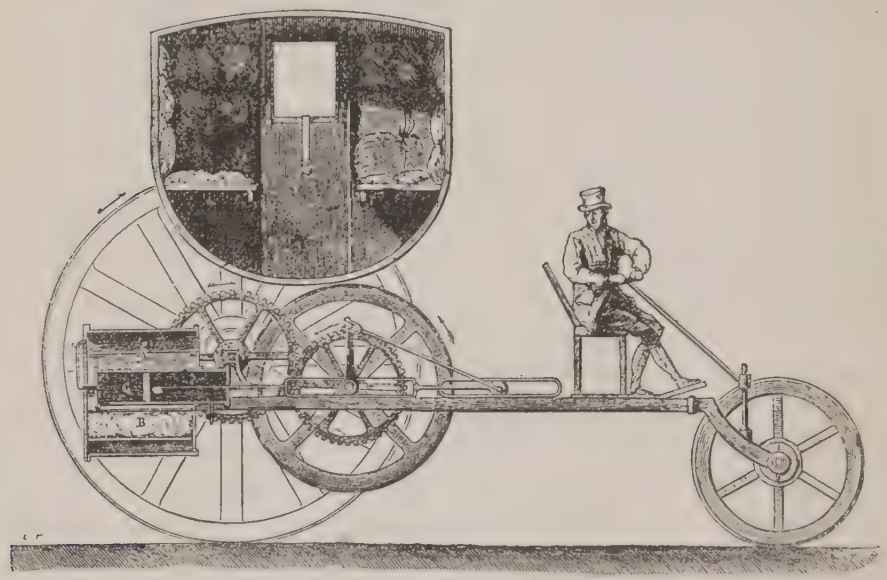
Trials were made by a number of men to make pictures "move,"

during the second half of the Nineteenth Century. At first, the idea seems to have been simply to make a plaything—to put several pictures together and turn them in the hand. If the pictures were only a little different, they would seem to move.

In later years, Edison and other men invented films which would make "movies," with the help of a "magic lantern."

Automobiles

Automobiles or "horseless wagons" were invented more than a hundred and fifty years ago. A diagram of one built in England more than a century ago, is before you. The diagram is meant to show how the fire made steam. The steam pushed a rod, and the rod turned



An "auto" made more than a hundred years ago. The artist tried to show how the machine worked.

a wheel. Only one of the large rear wheels is shown. This machine ran, but very slowly indeed. A person could make better time with a horse.

Automobiles which were practical to use, were not made until the Nineteenth Century was drawing to its close. Some of those "autos" were driven by steam engines, but steam power has gone out of fashion. The automobile driven by gasoline power is now in use everywhere; though electric machines are also used to a small extent. It may be that men will later learn to use electricity to drive large, powerful touring-cars and trucks.

Some of the automobiles of twenty years ago, were three-wheeled. Those autos were uncertain affairs, and it was always doubtful whether a driver would be able to get to the top of a hill. Farmers were fond of joking about how many autos they had "to pull to town," with horses. Now, however, the usefulness of the horse seems close to its end. Even in farm work, many farmers use machines driven by gasoline engines, in place of those which were formerly drawn by horses.

CHAPTER LVIII

HOW MEN LEARNED TO FLY

There is a legend that an ancient Greek made a hollow wooden bird which "flew." The Greeks were clever-minded, and it is just possible that a toy bird with flapping wings was made. If so, no picture or certain proof has come down through the ages.

In Rome, after the time of Christ, a man seems to have made an attempt to fly. He was known as "Simon the Magician." His purpose was to show that one of the miracles told about by Christians was not so wonderful after all. The Christians declared that one of their saints had risen toward heaven. Simon said that he would do the same thing. No record is left of what he used to make himself go up. It is only said that he did go up "by the power of devils," but then fell and killed himself.

Some centuries later, a Saracen appears to have tried to "fly" at Constantinople. He went to the top of a tower, around which a great crowd was gathered. The legend says that he wore "a big robe made stiff with rods." Perhaps he was able to spread the robe around him like a fan. While he was waiting for a gust of wind, the people began to shout:

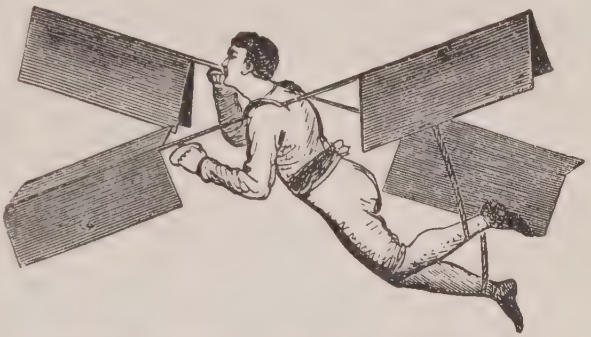
"Hurry up, Saracen! Don't keep us waiting forever!"

Excited by their cries, the Saracen jumped from the tower. There was just wind enough to take him a few feet upward—then his outstretched robe crumpled. Down to earth he fell "and broke his bones."

A Locksmith's Flying Machine

In the town of Sable, France, in the year 1675, lived a locksmith named Besnier. To earn a living, he made locks and keys; but in his spare time, he tried to learn to fly. To do so, he built a curious

machine with four paddles. The picture before you is based upon one made in the time of Besnier. It shows as well as possible how his machine was built and how it was supposed to be operated. Each paddle or "wing" flapped as it went up and down. Cords tied around the man's ankles did the moving.



Besnier's machine. The picture is based on a sketch made during his lifetime.

Besnier (it is declared) went to a high place and flung himself into the air. He glided or "flew" safely to the ground. No careful record has been saved of his many ventures into the air. It is only said that he "flew over a house" and "crossed a river." How fine it would be if we could know for sure what Besnier did with his queer flying machine!

The Montgolfier Brothers and the Balloon

About one hundred years after Besnier tried to fly with four wings, two other Frenchmen found a better way to get up into the air. They were Stephen and Joseph Montgolfier. Before their day, there had been no balloons. Some men had talked of making large hollow balls rise, but no one had managed to do such a thing.

The Montgolfier brothers began to wonder about smoke. They knew that it always tended to go upward.

"Perhaps smoke will lift something with it," they thought.

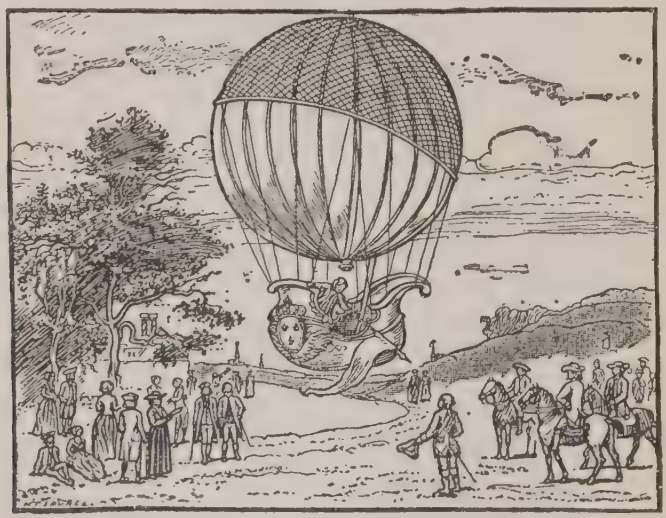
A large paper bag was filled with smoke by being held over burning paper. When it was let go, the bag floated up to the ceiling. The brothers thought that it was smoke which made the bag rise; but it was really the hot air.

After other trials of the same kind, the two young men set about

building a huge bag (or "ball") which deserved the name of "balloon." It was thirty-five feet in diameter, and was made of cloth lined with paper. A pit was dug and a fire was built. The balloon was held over the fire until it was full of hot air. Then it was tied up at the bottom and set free from the ropes by which eight men had been holding it down. Upward shot the balloon, and soon it was sailing high overhead. The height was estimated at six thousand feet. When the air cooled, it came back to earth.

Crossing the English Channel

A few months later, the Montgolfier brothers made a larger balloon and flew it in the presence of the king of France. This time it carried a basket beneath. A sheep, a cock and a duck were placed in



An old picture of an early balloon in flight.

the basket. The balloon rose a few hundred feet, then sailed with the wind for half a mile. When it came down, people rushed to see what had happened to the "passengers." The sheep and duck were in good shape, but one of the cock's legs was broken. Perhaps the sheep

had stepped on it when the basket was given a sudden swing by the wind.

Not long afterward, two Frenchmen dared to get into a balloon basket and were carried three thousand feet into the air. They kept a fire going to supply hot air for the balloon, when needed. Soon they were sailing over the city of Paris. They had to make the fire extra hot to keep from falling down on one of the buildings. By and by they passed the crowded portion of the city and were able to land in safety.

Three years after the balloon was invented, an American doctor named Jeffries and a Frenchman named Blanchard decided to try to cross the English Channel by air. They filled their balloon with hydrogen gas, instead of hot air and smoke. In the basket, they carried bags of sand to use as "ballast." When the wind was right, they set out from Dover and began drifting over the channel waters. When they were only eight or ten miles out, the balloon began to go downward. Quickly they picked up some of the sand bags and tossed them overboard. Thus lightened, the balloon began to go up again.

About half way across, the daring air-men found that the balloon was again beginning to settle. All the rest of the sand bags were dropped, but that was not enough. Then some books were hurled out of the basket. To the joy of Jeffries and Blanchard, the balloon stopped going down and floated along toward the French coast.

At last the coast came in sight, a few miles away. With fast-beating hearts the men wondered whether their balloon would hold out until land was reached. Suddenly they found themselves sinking once more. The balloon anchor was cut loose, but that did not stop the falling. Death in the sea seemed to await the adventurers. Still they did not give up. Pieces of rope and tackle were found and tossed away. Then they began to throw out hats, coats and shoes. This was just enough to save the balloon and its riders. The French coast was reached, and a landing was managed. After making their way over solid earth to the city of Calais, Jeffries and Blanchard were received as heroes and were given a grand feast.

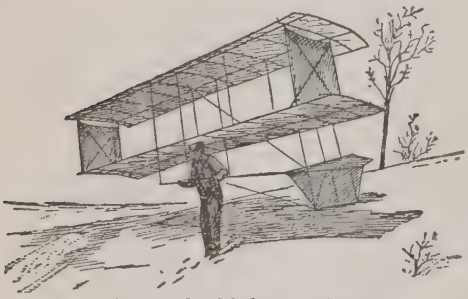
From that time onward, balloons became fairly common in both Europe and America. An Englishman managed to get more than four miles high. Many new facts were learned about the air and the clouds.

Gliding Through the Air

Balloons were successful, but they did not satisfy everyone. For one thing, they could not be steered. Before starting a trip, balloonists had to wait until the wind was "right." Besides, there was always danger of the balloon bursting.

Other men set to work again with the idea of using wings. Many were the attempts to sail through the air, like the gull with its outstretched wings. England was the country in which most trials were made. None had any great measure of success.

At last, a German named Otto Lilienthal surprised the world by making a glider which would carry him safely through the air. When only a boy of thirteen, he had begun his tests by flapping "wings" as he ran down hill. The wings did not lift him up, but he kept trying to learn the secret of flying. He finally decided that the trouble was that no one knew enough about birds. Then he spent years watching birds, especially those which sailed or glided with their wings spread as widely as possible.



An early biplane glider.

In 1891, Lilienthal was ready with a glider which he had built to carry himself. Getting on the end of a spring-board, he was able to jump up and glide a short distance with his machine. The spring-board was then made higher, and he was able to glide farther.

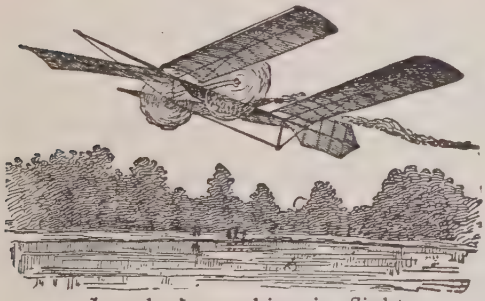
A year later, Lilienthal tried to glide down a small hill. The effort was a success. In time, he was able to make flights of more than seven hundred feet.

Lilienthal gliding.

The next idea of this German inventor was to fit a motor in a gliding machine, and drive ahead with a propellor. Just before he was ready to make the trial with an engine-driven machine, he was killed through a fall from a glider.

Langley Makes an Airplane

In the United States at that time, several men were trying to learn to make a machine which would go through the air. One of those men was Professor Samuel Langley. He was eager to prove that a motor could drive a glider, by turning propellers.



Langley's machine in flight.

After many failures, Langley made ready for a further trial in May, 1896. He had built a machine with large outspreading wings, and two propellors. It contained a small steam engine, but there was no place for a man to ride.

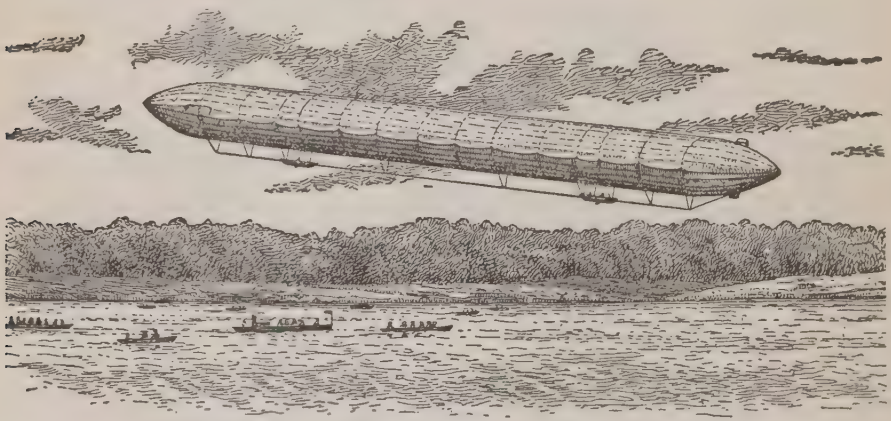
Langley's machine was launched from a tower over a house-boat in the Potomac River. It rose in the air and made wide circles. After traveling about two-thirds of a mile, it sank downward into the water. Another trial of Langley's machine resulted in a flight of almost a mile. The engine drove the plane over the tops of trees near the river side.

Langley later made attempts to build a machine which would carry a man through the air; but accidents kept him from succeeding.

Many men were now busy trying to make a success of an airplane with a motor. Among these was a Brazilian named Santos-Dumont who was making trials in France.

Success of the Wright Brothers

In America, two brothers, Wilbur and Orville Wright, came into public notice. They had learned of the gliders of Lilienthal and the power-driven planes of Langley. For years, they spent much of their time building gliders and testing them. Finally, in 1903, they succeeded in placing a motor in a biplane glider with two propellers. The machine rose in the air, carrying one of the brothers. Twelve seconds passed before it came to earth again. Three other short flights were made on the same day. It was proved that a motor-driven airplane could keep a man in the air!



An airship invented by the German, Count Zeppelin.

In the years since Langley and the Wright brothers learned to drive planes with motor-power, great advances have been made in winning power over the air. The airplane has been made into a machine which can remain in the air hour after hour. Some machines can fly at a

speed of more than two hundred and fifty miles an hour. Aviators have flown around the earth.

Balloons are still used to a certain extent; but for most purposes they are too clumsy. A new type of balloon has been invented. It is known as a "dirigible," and is shaped like a cigar (or a sausage!). Motors drive propellers for dirigibles and they can be steered quite well. The day of the simple balloon is about over, but the dirigible may have a future, alongside the airplane.

CHAPTER LIX

THE WORLD WAR

In this, the next to the last chapter, I must speak of one of the saddest events in the life of mankind. The World War has come and gone. In its trail, it has left untold misery and sorrow.

Before the World War started, people in Europe were fearing that the nations would come to blows. In every large country, the governments had built up armies and navies to serve "in case of need." On one side was the Triple Alliance, made up of Germany, Austria-Hungary and Italy. On the other side was the Triple Entente, made up of France, Russia and England.

The Triple Alliance

Germany was the most powerful country in the Triple Alliance. It had 5,200,000 men who were carefully trained for battle. Its navy was not so large as that of Great Britain, but it was very strong. German merchants had been pushing forward for a number of years, and had struck up a lively trade in almost every section of the earth. At the head of the German government was an emperor or "kaiser."

Austria-Hungary was an empire made up of people of many races. It could call together an army of two million men. The emperor was called "kaiser," the same as in Germany.

Italy had trained 1,200,000 men to be soldiers. Its navy was not very large, but was strong enough to make a fight for control of the Mediterranean—if the English fleet stayed away.

The Triple Entente

Russia had the largest number of trained men in any country before the war. It could call upon 5,500,000 soldiers. The Russians

had more soldiers than the Germans, but their soldiers were not so well trained or equipped.

Russia was an empire which stretched from the Baltic Sea to the Pacific Ocean. It was under the power of an emperor or "czar." The people were mainly poor peasants who toiled on the land, year in and year out. Very few of the peasants owned the land they worked on: it belonged to rich men or nobles. The peasants lived in small villages spread all over the vast empire. The chief cities were Moscow and St. Petersburg.

In France, as in Germany, "every man was a soldier." That means that each young man needed to train in the army for two or three years, or else leave the country. Four million Frenchmen had been taught the "art" of war. France had a strong navy.

England, or Great Britain, had power over more land than any other nation of the earth. The islands of Great Britain and Ireland were only tiny parts of the mighty British empire. India, with more than three hundred million people, was under the control of Great Britain. Egypt, Canada, Australia, New Zealand and South Africa were other lands under the British flag.

The British navy was by far the largest possessed by any nation. It had been built up to guard the far-flung empire. The army of Great Britain was not especially large. When the war began, only four hundred thousand British soldiers could be quickly mustered.

Before the Outbreak

Someone has truly said that Europe was "like a store-house full of powder—it needed only a live spark to set it off."

For years before the war broke out, people thought that they saw "sparks" in the air. Most of the "sparks" arose out of trade rivalry. The merchants of different countries were all anxious to beat the others in the amount of trading they could do.

Africa was one of the rich markets which the merchants were after. At one time the British started to build a railroad "from the Cape to

Cairo." That railroad was intended to give the British a fine trade route from the south of Africa clear up to Cairo, Egypt. The German merchants were alarmed because they feared that they would lose part of their trade in Africa. For a time it looked as though the nations might come to blows—but the storm blew over.

In the same way, a quarrel arose about a railroad which the Germans were planning "from Berlin to Bagdad." This time the English, French and Russian business men were alarmed. They feared that the Germans and Austrians would get too much trade with such small countries as Roumania, Serbia, Greece and Turkey. The Germans did not finish the railroad, however, and no war came about just then.

The Fatal "Spark"

Finally, in the summer of 1914, the fatal "spark" set off the powder. An Austrian archduke was shot and killed. The Austrian government claimed that the killing was due to a Serbian plot. The Serbians were told to punish the men responsible for the death of the archduke before a certain date. They were also ordered to follow Austria's will in other ways. The Serbians made an effort to do most of the things asked, but the Austrians were not satisfied. War was declared. Russia ordered soldiers to prepare to march toward the borders of Germany and Austria. Germany made ready to fight Russia. People everywhere were amazed. They were wondering:

"Can it happen? Can all Europe get into war? Can we, who are so well 'civilized,' fight like wild beasts?"

Crowds of people gathered in different countries, and shouted:

"Stop the war! We want peace!"

In Berlin, fifty thousand men and women gathered in a great public street, and speakers said that the war must not spread. In France and England, other crowds gathered for the same purpose.

But it was too late. The governments of Germany and France soon declared war against each other. Russian and German troops began

to spill blood in East Prussia. Austrian soldiers had already entered Serbia.

Germany Invades Belgium

Germany sent part of its mighty army against France. The Germans told the Belgians that they wanted to march across their country to fight France. The government of Belgium refused. War was declared between Belgium and Germany, and Belgium became a scene of bloodshed.

The German generals had thought to get their soldiers to Paris more quickly by going through Belgium. They were wrong. Their action against Belgium supplied England with a reason to enter the war against Germany, though it is likely that England would have helped France at any event.

Years of Terror

I have neither the space nor the heart to tell of all the "ins and outs" of the World War. It dragged on for four terrible years. Italy stayed out for almost a year, then went in against its former partners, Austria and Germany. The British fleet kept up a blockade against the Germans, hoping to starve them into giving up. The Germans replied by launching submarines which blew up ships bound for England.

On the land, the war was fought with more terror than was ever known in any other war. The mightiest cannon ever seen, tore away forts and sometimes towns. Northern France, Belgium, Poland and East Prussia, were laid waste in many parts. The soldiers on both sides dug trenches for themselves, in order to be out of the way of the enemy. The Germans let loose clouds of poison gas which floated into the trenches of the French, English, and Belgians. The latter, with Russia and Italy, were now called "the Allies." They made bombs filled with poison gas and hurled them into the German trenches.

Airplanes buzzed overhead, giving signals and dropping bombs. German dirigibles or "Zeppelins" flew over England and hurled bombs down upon London and other cities. The Zeppelin bombs were supposed to be aimed at factories which made powder and shell, but they sometimes struck and killed persons elsewhere. Airplanes of the Allies also dropped bombs on certain German cities and towns.

The United States Enters

As time passed, the Allies were joined by many other countries, including Japan, Portugal, Roumania, Greece, the United States, China and Brazil. Germany and Austria were joined by Bulgaria and Turkey.

At about the same time the United States was entering the war, Russia was getting out. The Russian troops were sick of the war. They revolted, and the czar was put off of his throne. Some months later, a group of men seized power over the Russian government. They called themselves Bolsheviki, and said:

"The war must end with neither side winning. There must be no land taken by either side. There must be no money paid by either side as indemnity."

President Wilson of the United States had said about the same thing; but now he had changed his opinions somewhat. He declared that there should be peace only with victory on the side of the Allies.

The Russians withdrew from the war, and the United States began to send soldiers and guns across to France. After a year, the tide turned and the Germans were driven back. A truce, or "armistice," was declared. The fighting stopped on November 11, 1918.

When that day came, the people of every country on the earth were full of rejoicing. They were glad that the mad clash of arms was over.

After the War

After the war, northern France was a scene of the saddest kind. It was worse than if an earthquake had come. Everywhere were shell holes and shattered houses. Thousands were without homes.

The Russians had lost more soldiers than any other nation. Their loss had reached one million seven hundred thousand men. The Germans were next. One and a half million men had been killed; and as many others had arms, legs, or hands blown off; or were blinded; or had gone insane. About one million Frenchmen had been killed; while nine hundred thousand British soldiers had died on the battlefields. The United States lost fifty thousand men by death in battle, and more than two hundred thousand American soldiers were wounded.

Austria and Germany became short of food. Tens of thousands of persons in those countries starved to death after the war was over. The German kaiser had fled from his country to Holland. Germany had been declared a republic: but that did not keep people from starving. In Austria, it was the same story—the emperor gone, but the people starving.

After long months of debating, a treaty of peace was signed in France. The French recovered power over Alsace-Lorraine which had been lost in a previous war. Great Britain gained power over some of the colonies the Germans had owned in Africa, and added a million square miles to its control. Austria-Hungary was split up into small parts. Poland was made a nation free from the rule of Russia or Germany.

Europe Loaded With Debt

As these words are written, more than five years have passed since the end of the World War. The nations of Europe are hard-pressed. The people are loaded with debt. The value of money is changing. It is hard to say how things will shape themselves. There may be

more revolutions like the one which took place in Russia, where the peasants seized the land and the workmen took charge of the factories.

The World War has brought hardship and starvation to the human race, but there is no reason for us to lose heart. Mankind has had problems to face down through the ages. These problems have always been met; and people will meet the problems which have lately come. The earth, we may believe, will some day be a place where there are no wars between nations.

CHAPTER LX

THE PRESENT AND THE FUTURE

To-day we live in a magic world. At least it would seem magic to an ancient Greek or Roman, or even to a man of two hundred years ago.

The power of electricity has been harnessed. It has been made to move street cars, and railway coaches. It turns the wheels of factories, where millions of men and women toil. It gives us light at night, turning darkness into a kind of daylight.

What would an artist of the caves have thought if a magician could have brought him an electric lamp? There he was, proud of his newly-invented flat-stone lamp. Coming suddenly, an electric light would have been too much for him. No doubt, he would have run away and have had a tale to tell for the rest of his life. Yet to-day, the electric light is a common thing.

Steam Power and Gunpowder

Two thousand years ago, certain Greeks played with steam power; but during the last three centuries, men have busied themselves to make steam do useful work. A single steam locomotive would have been thought the greatest wonder of the world if it could have run through ancient Greece.

The Romans thought that they were mighty war-makers; and they were for their time. A small warship of the present, however, could have blown the largest Roman fleet to bits. A company of modern soldiers with a cannon and a machine-gun might have captured the proud city of Rome. Gunpowder is indeed a marvel, of a sort; but men will be happier when they learn to use it only for such purposes as blasting stumps—never for blasting human bodies.

Moving-Pictures for Schools

The moving-picture machine has brought great possibilities. At present, it is mainly used to amuse or entertain. It can be used to make schools more helpful. Geography may be taught in a manner much more instructive than by the rather dry textbooks now written about an interesting subject. Events in history (or customs of long ago) can be shown upon the screen with profit, if great care is taken to make the film-story truthful. Facts about almost every subject of science can be better-taught with the help of moving-pictures. Text-books will still be needed; but the movies, when widely-used, will aid in making school life a joy to every boy and girl.

Public Museums

Museums in large cities are a treat which could not be enjoyed by people a few hundred years ago. In museums we can see birds and beasts, flowers and plants, from many parts of the earth. Not only that—we can also see the skeletons of animals which lived long before there were any people. We can see the mummies of ancient Egyptians; tools used by Stone Age men; weapons and clothing of Eskimos and American Indians. A museum is a storehouse of pleasure and interest

Phones—Present and Possible

A simple thing is the telephone—at least it seems so. Houses everywhere have telephones which a person can use to talk a few hundred feet, or thousands of miles. Fifty years ago, a person often traveled miles to call a doctor or make an appointment with a friend. Now the telephone (when working properly) can bring an answering voice in a brief moment. The time is possibly coming when radio-phones will be in use in houses, and an American may "call up" a

friend in China or England as easily as he can now telephone to a near-by city.

Men and Their Telescopes

The science of "astronomy" teaches us about the stars and planets, the sun and the moon. When Galileo used his small telescopes to look at the heavens, he little knew what great things would be learned by men who lived after him.

The larger telescopes of later years have made it possible to tell how far away are some of the stars. The sun is about ninety-three million miles from the earth. The "nearest" star is more than two hundred and fifty thousand times as far away.

An airplane could not travel to the sun, for many reasons—but let us suppose it could. If the airplane went two hundred miles an hour, it would arrive in fifty-three years and thirty days. If the same airplane were to go to the nearest star, it would need to travel for more than a million four hundred thousand years! If it would take that long to reach the closest star, think how long it would take to travel to other stars: some of which are hundreds of times as distant.

Because the stars are so far away, they look small. They are really of tremendous size. Our earth would seem tiny beside any one of them—like a pinhead beside a basket-ball.

Planets

Besides learning about the stars, men with telescopes have discovered much about the planets. These are like the earth in some ways. Four of the planets are larger than the earth. All the planets whirl round the sun at startling speed. The earth travels at the rate of more than eighteen miles a second; but it takes a year to get clear around.

These are just a few of the things which men of science have dis-

covered about the universe. In the future, new facts may be discovered. We may even find out whether there are really people—or beings like people—on other planets.

When we think of how small the earth is, compared to the sun or stars, we may feel a shock. Let us remember, though, that the people of this planet have proved themselves great. Slowly working themselves out of the Stone Age, they have come to a point where they can measure the stars.

Other Victories to Win

Through the long ages, men have marched toward a mighty victory. Slowly and painfully, they have learned some of the secrets of nature. They have won much power over nature. There remain, however, other victories to win in the future. We need to find ways to cure—or prevent—disease of every kind. We must stop the waste and folly called war. We can do much to bring about happier lives for everyone.

Time—and effort—are required to meet our problems. Each of us can do some bit to make things better. We are children of a long line of mighty ancestors. Our ancestors won victory after victory, and we can push their work forward. Let us say to ourselves:

"On to Greater Victory!"

THE END

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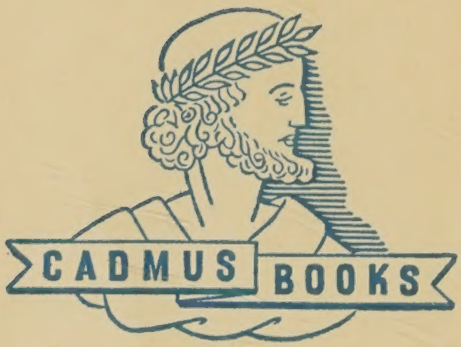
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